



**SHIVAJI COLLEGE**

**University of Delhi**

**Ring Road, Raja Garden, New Delhi 110027**



**SELF-STUDY REPORT 2015**

**SUBMITTED TO**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**



# शुवाकी कॉलेज भवन

का  
उद्घाटन

भारत के उपराष्ट्रपति श्री बसप्पा दानप्पा जत्ती ने किया  
३० नवम्बर, १९७६

## SHIVAJI COLLEGE BUILDING

INAUGURATED

BY

SHRI B. D. JATTI, VICE-PRESIDENT OF INDIA  
NOVEMBER 30, 1976

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## PREFACE

Shivaji College, a constituent college of the University of Delhi was instituted under the governance of the Delhi Administration. It is a co-educational institution, situated on the Ring Road close to the Rajouri Garden metro station. The college is easily accessible by metro and road. It is also well connected to the airport and major railway stations of the city. Owing to the growing needs of education and heritage of academic distinctions, Shivaji College has become one of the most sought after colleges in West Delhi.

The College was founded in 1961 by the renowned social activist and farmer-leader, Hon'ble Dr. Panjab Rao Deshmukh, the then Union Minister for Agriculture to meet the needs and ideals of higher education in a predominantly agrarian area. Up to some years after its inception, the college functioned from a temporary building in village Matiala. It was taken over by the Delhi Government, and relocated to Karampura, in 1967. The college finally shifted to its present location in 1976. Following our motto of '*Amritam tu vidya*' (Education is an eternal process ) we have moved from our humble beginnings to the level of an important constituent institution of the University of Delhi, catering to the higher education needs of students from across the country.

The campus of college is spread over an area of 10 acres out of which 4 acres is judiciously used for academic purposes, residential complex and sports ground. The total built up area of the teaching and administrative blocks is 10, 002 sq. metres. There are a total of 46 lecture rooms out of which 41 have multi-media projection facilities. In addition, there are six tutorial rooms and 10 science laboratories, one museum and four research project rooms. There are four computer laboratories with all the required softwares. The centrally air conditioned auditorium of the college has state of the art multi-media facilities and has a seating capacity of 250. The entire campus is a Wi-Fi enabled zone. There is a well-stocked library, a bright spacious canteen and two kiosks.

College offers courses in Humanities, Sciences, and Commerce at the undergraduate level, as well as the postgraduate level. Students graduating from this institution have achieved distinctions in all walks of life.

We believe that education is not confined to classroom teaching but should aim at the overall development of the students so that they grow up as good and just citizens capable of contributing to human welfare at large. This manifests in our output in academics, sports, music, theatre, arts, National Cadet Corps, National Service Scheme, and so on.

We have a highly qualified faculty which is diverse in its composition - including the younger people as well as mature seniors who come from different parts of the country. Most of the teachers engage in research and

other academic pursuits besides looking after their teaching and allied activities. A number of the senior faculty members are supervising Ph.D. scholars registered with University of Delhi as well as other universities. Many of them are working on UGC-sponsored major and minor research projects and on university sponsored Innovation Projects. Students are also engaged as young researchers in the University of Delhi sponsored Innovation Projects. It helps in inculcating the research aptitude among the young students and they develop the spirit of enquiry and inquisitiveness. College ensures a congenial environment for academic and other activities. All departments organise activities like seminars, lectures by eminent scholars, conferences, symposia and excursions.

The college completed fifty years of its existence in 2011-12. The Golden Jubilee year was marked by a series of academic, extra-curricular and cultural activities. The most outstanding among these activities was the International Conference on “Science, Spirituality and Humanity: Transcending Discipline Barriers” which was attended by many renowned scholars from 18 countries. It was organised during 17<sup>th</sup>-19<sup>th</sup> February, 2011 in collaboration with the Department of Philosophy, University of Delhi, and the National Institute of Disaster Management (NIDM), Ministry of Home Affairs, Govt. of India. In this conference, Shivaji College accomplished what many other academic institutions could only wish for.

First ever international conference organized by Women Development Cell (WDC) on “Empowerment of Women in the Developing World” was held on 1<sup>st</sup> & 2<sup>nd</sup> April, 2013 in collaboration with Women’s Studies and Development Centre (WSDC), University of Delhi and NIDM.

The college has instituted the Jijabai Women Achievers’ Annual Award with the objective of felicitating women of determination and perseverance, from all walks of life. This is a humble effort towards our social commitment and the cause of women. The College provides an equal opportunity to students from all sections of the society. A number of committees constituted by the Staff Council work towards this goal.

## ACADEMIC MILESTONES ACHIEVED BY SHIVAJI COLLEGE

**CONDUCT:** The College was awarded for "Good Practice" in ANTARDHWANI 2013, the annual inter-college festival of the University of Delhi in which all the constituent colleges participate.

**RESEARCH:** UGC has granted one major research project and currently the college has nine on-going innovation projects in the field of humanities, arts and science from University of Delhi. The innovation projects provide an opportunity to students to participate in research work. It helps them learn beyond the prescribed curriculum.

**ACADEMICS:** To commemorate its golden jubilee, the college organized an international conference on "Science Spirituality and Humanity: Transcending Discipline Barriers" in 2011. This conference facilitated exchange of views on interdisciplinary subjects and contemporary views among scholars from many countries. All the departments organize seminars, workshops and symposia on an annual basis.

**FACULTY ENRICHMENT:** Some teachers have participated in faculty-exchange programmes both as visiting faculty and as researchers at foreign universities. Many of our faculty members have served as resource persons in refresher and orientation programmes within India as well as abroad. A number of senior faculty members are supervising research scholars enrolled in doctoral programme of University of Delhi and other universities. Our faculty members Dr. Ravi Khaneja, Dr. G.P.Mishra, Mr. Manish Sachdeva, and Dr. Jeetendra Aggarwal were honoured by the University of Delhi with the best teacher award for their contribution in their respective fields.

**PRACTICAL SKILL ENHANCEMENT:** Departments of Computer Science, Mathematics and Economics organized workshops on "Computer Security from Industry Perspective", "Theory of Equations" and "Introduction To STATA and SPSS" in 2014 respectively. A three day workshop for laboratory assistants and attendants from chemical and life sciences was organized by the department of Biochemistry, Botany, Chemistry and Zoology in 2014. The aim was to upgrade their technical skills and to make laboratory a secure and student friendly zone. A national workshop "RNAOMICS: ISOLATION TO INTERFERENCE" was organized in the year 2010 for teachers across University of Delhi to equip them with latest technical advancements and teaching methodologies.

## **EXECUTIVE SUMMARY**

Shivaji College is a leading institute in West Delhi which offers 17 undergraduate courses in Science, Humanities and Commerce. It also offers 1 self-financing undergraduate course in B.A.(H) Business Economics and 3 post graduate courses. It has come a long way from a 100 students in 1961 to a current strength of 3500 students. There are 191 accomplished faculty members supported by a team of hardworking and efficient non-teaching staff. The preparation of self-study report (SSR) of the college has given an in-depth insight into the strengths and weaknesses of our institution. A brief summary of 7 criteria in SSR is given below:

### **CRITERION I- CURRICULUM PLANNING AND IMPLEMENTATION**

The mission, vision and objective of Shivaji College is amply reflected in the college's motto 'Amritam tu vidya' (Education is an eternal or a never ending process). Right from its inception in 1961 till today, the college has striven to achieve greater heights in quality education. Developing an ardent quest for knowledge, research, freedom of expression, respect for culture, generating sensitivity towards one's environment are some of the focal points around which the institution works. The college offers 18 undergraduate courses leading to the Bachelor with Honours/Programme Degree and postgraduate courses in Hindi, Political Science and Sanskrit. The college also offers a new technical course, B.Tech in Computer Science. This vast array of disciplines provides a broad choice of courses. With a focus on the holistic development of the students, excellence in both curricular as well as the extra-curricular activities is promoted. The faculty works towards encouraging an attitude of enquiry, a critical outlook and an analytical approach among the students. The concept of parallel education runs deep in our curriculum and all departments in the college organize seminars, symposia, conferences, study tours, and other academic activities to achieve this end. The various students associations, departments, staff council committees as well as robust NCC and NSS units are running comprehensive programmes for the betterment of the students in particular, and society at large. The committees like the Grievance Cell, SC/ST/OBC Counselling Committee and Women Development Cell have been created to address the special needs of the students. Curriculum enrichment would remain incomplete, if technological developments are not incorporated in the life of an educational institution. In keeping with these sentiments, the college keeps pace with most of the technological shifts related to university education. Continuous efforts are made to update all college infrastructure like the college library, auditorium, website, college office, the

classrooms etc. with the latest technology. Such updating promotes physical and intellectual agility in the institution. Shivaji College has an active Placement Cell that not only helps students in getting internships and jobs, but also works towards making them employment ready. B.Tech in Computer Science introduced in 2013-14, is specifically designed to offer its students good employment opportunities, after successful completion of the course.

The difference between ‘literacy’ and ‘education’ is well understood at Shivaji College. Efforts are made to provide the students with all facilities that would inculcate in them a healthy competitiveness and a yearning for perfection. We, at Shivaji College, adhere to what John Dewey had said, i.e. ***“Education is not preparation for life; education is life itself”***

## **CRITERION II - TEACHING-LEARNING AND EVALUATION**

Admissions in colleges of University of Delhi are made on the basis of merit and the college follows the same norms. The minimum cut-off marks for admission to various courses are decided by the college admission committee on the basis of transparent, pre-decided norms which are in conformity with the rules laid down by the University. The college also follows a policy of giving concession to girl students in eligibility criteria for admission to different courses. The University guidelines are strictly followed throughout the admissions with regards to minimum eligibility, age and reservation for various categories. A comparison of cut-off lists of different institutions reveals that the college enjoys a fair degree of popularity among admission seekers.

Shivaji College has created facilities for differently abled staff and students in accordance with the government guidelines. Committees like Grievance Cell and Equal Opportunity Cell ensure that no student is at a disadvantage on account of any disability. Differently abled students not only get equal opportunities to acquire knowledge, but also extra support to achieve their goals. Remedial classes and tutorials are held to help these students keep pace with their peers.

The college has highly active NCC and NSS units, Eco-Club, Women Development Cell (WDC), Placement Cell and Cultural Committee. These units work towards an overall personality development of students. The report enumerates the details of the activities of these societies/units.

Activities like industrial-trips and historical excursions are organised by the institution. Shivaji College has participated four times in the “College on Wheels” programme of the university, called Gyanodaya. The students are



taken to different parts of the country under this project giving them exposure to two different cultures. This not only enriches their knowledge but also strengthens the spirit of national integration. The college has twice organized soft skills training programme for police constables to fulfil its social responsibility. The faculty is engaged in a number of innovation projects and other research projects. Meritorious students have access to a number of scholarships and facilities like fee-concession.

A number of national and international workshops and seminars have been organized during the past four years, details of which are included in the report. Faculty is provided opportunities for staff development programmes for upgrading their knowledge and teaching skills. The college takes utmost care for regular and timely internal assessment of the students. Most of this work has been computerised to make the process quick, efficient and transparent. Latest IT techniques and equipment are used to make learning more efficient.

Many members of the faculty have received national and international awards, scholarships and fellowships. All these achievements make a positive impact on the overall development of the institution.

### **CRITERION III- RESEARCH, CONSULTANCY AND EXTENSION**

One of the recognised objectives of the institutions of higher learning is to foster a spirit of research amongst students. Among other things, Shivaji College tries to inculcate a culture of learning based on questioning, self-exploration and dialogue. The faculty and students are encouraged to undertake and pursue research activities as well. An inter-disciplinary approach is encouraged to enhance social value of the research. Teachers play an important role in research and they are instrumental in arousing curiosity among students. The college acts as a facilitator in promoting academic research among students, teachers and technical staff alike.

There are nine on-going Innovation Projects supported by the University of Delhi engaging both teachers and students in these projects. This is the second highest number of projects granted to any college in the University of Delhi in a year. Several faculty members are currently supervising Ph.D. and M.Phil. students, are engaged in Post-doctoral research, guiding internship programs and mentoring miscellaneous projects. College strives to create an environment conducive to research through granting study leave (for Ph.D. and Post-doctoral research) and duty leave (for presenting papers and attending conferences) as per UGC rules. It supports the faculty members in

getting funding from government and non-government organizations. Information about scholarship programs and funds available for research at different levels is regularly disseminated. The college provides excellent infrastructural facilities, scientific apparatus, latest software, and ensures that recent editions of books are available in the library.

Academic activities like international and national conferences, seminars, workshops, training programs and sensitization programs are a regular feature of the college calendar. These activities help in arousing the curiosity of the students and faculty members towards new avenues and provide a platform to share their research and knowledge with the larger audience.

#### **CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES**

Shivaji College was established in 1961 with less than a hundred students. By 2015, it has proudly grown into a college that offers 18 undergraduate courses to more than 3,500 students. The College is situated on an easily accessible, prime location on the Ring Road in West Delhi, at a distance of 300 meters from the Rajouri Garden metro station. The land for the campus of the college was allotted by the Delhi Development Authority in 1972 and the building housing the college presently was constructed in 1976.

The college is spread over 10 acres of land, four acres of which are used for construction of the academic block, and one acre for the residential block. The remaining land measuring five acres is used for creating a sprawling sports complex. The college has 10,000 sq meters of built-up covered area which includes the basement, the ground floor, and the first, second and third floors.

The Governing Body of the College is the apex administrative body. It consists of fifteen members including the Principal who is its ex-officio secretary. It oversees all matters pertaining to the infrastructure and development of the college.

The academic block has 41 classrooms, 10 science laboratories and 4 computer laboratories. In addition there is a fully air-conditioned auditorium, a botanical/herbal garden and a museum. Taking into consideration the increasing number of students being admitted each year, there is still a need to add to the existing infrastructure. The college proposes to add another academic block of 10,002 sq meters. In addition to this, there is a proposal for constructing a girl's hostel with a capacity to accommodate 100 residents. Drawings and plans for the same are on the verge of approval by municipal authorities. A master plan of the college with all details such as technical

information related other infrastructural facilities like water purifiers, electricity back-up and fire extinguishers is presented in this report.

There is a generator based power backup in the college to maintain uninterrupted power supply. R.O systems have been installed to ensure safe drinking water and fire extinguishers have been provided in all laboratories and offices as a safeguard against fire hazards.

The Library of the college occupies space on three floors and covers an area of 744 sq meters. It houses more than 86,000 books on all disciplines and has an air-conditioned reading hall. The library is also equipped with Online Public Access Catalogue (OPAC) facility and internet connectivity, for accessing online journals and lectures. In addition to this there is an INFLIBNET portal to facilitate e-learning and providing both in-house and remote access to the required reading material.

The college has 175 desktops, 1038 laptops, and 3 servers. The computer laboratories are equipped with the latest software meeting the needs of the students and their syllabi. The entire college campus is a Wi-Fi enabled zone and 962 laptops are available for distribution to students for personal use.

#### **CRITERION V: STUDENT SUPPORT AND PROGRESSION**

All round development of the students is the prime objective of any academic institution. All efforts are made to provide facilities to the students for their betterment and improving their performance in academic and allied fields. The college encourages its meritorious students by awarding them on Annual Day. Students from SC/ST/OBC categories and those from economically weaker section are provided financial assistance in the form of fee concessions and scholarships. There is an arrangement for special facilities like separate rooms, laptops, braille books, I-pods, washrooms etc. for physically challenged students. The college has a W.U.S health centre on campus and also provides the students with an insurance cover. Students are given extensive exposure through various educational and industrial tours. It not only enhances their knowledge and understanding but also gives them hands on experience. They regularly visit institutes of higher learning, industry and research centres. The college has a placement cell that actively organizes placement drives for students. Many students get job offers from well-known companies. Additionally, a grievance redressal cell for students, complaints committee (against Sexual Harassment) and the anti-ragging committee address issues pertaining to students' problems.

Shivaji College has a record of excellent examination results and constant

efforts are always made to improve the performance of the students further. Special efforts are made by means of tutorials, practice tests and counselling to help them achieve higher levels of learning and performance in examinations.

Academic calendar of college is drawn out in advance every year. Seminars, conferences and lectures by experts in different fields are some of the activities organised for benefit of students and teachers. There are NCC units for both boys and girls that train the cadets and give them exposure through camps and participation in various events like blood donation camps, Republic Day Parade etc. The students are groomed in various sports. They actively participate in many inter university and inter college competitions. The college has cultural societies and the students are encouraged to participate in inter college and inter university competitions. Cultural activities are also organised in the college. The students have won many prizes and brought laurels to the college. The students are involved in the college activities in many ways. Student representatives are included in some of the committees such as Committee against Sexual Harassment and the Library Committee. The Students' Union of the college is involved in decision making on matters concerning them.

#### **CRITERION VI - GOVERNANCE, LEADERSHIP AND MANAGEMENT**

Shivaji College has a mission of achieving academic excellence in all disciplines and emphasis is laid on all round development of the students. The college grooms students to be academically sound and responsible key role players in building a culturally sensitive and knowledge based society. The top leadership and management of the college work towards achieving this objective by providing an effective governance which is participatory and transparent.

The Principal of the college is the ex officio secretary of the Governing body which is the apex executive and regulatory body. The staff council consists of all staff members under the chairmanship of the Principal takes all academic and other related decisions. Staff council committees and departments effectively implement these decisions after thorough planning and discussion. The decision-making process is thus highly consensus-oriented and motivates the participants to take full responsibility of the same.

The leadership ensures that quality of actions and policies is steadily enhanced through constant evaluation and monitoring. It makes all efforts to ensure effective implementation of quality policies. The management provides a congenial and free environment to its stake holders, by interacting with them

formally and informally and by taking their feedback on various aspects. They are encouraged to provide their suggestions and innovative ideas for effective working of the institution, thus promoting a culture of excellence.

Human resource management at Shivaji College is very equitable and inclusive. Ample opportunity is provided to all the participants – the faculty, students and administrative staff for their growth. The management ensures that all due benefits and welfare facilities are granted to the staff as per norms and rules of the UGC and University of Delhi.

The management thus ensures that the staff works effectively as teams and as individuals towards delivery of the organizational mission. It exercises effective control, displays integrity, openness and transparency in working. In alignment with its motto-“**Amritam tu Vidya**” the college has a perspective plan of development that covers all aspects viz. infrastructure, academic up gradation, faculty development, research, and extension services and community engagement. The college has recently established Internal Quality Assurance Cell (IQAC). The policies are well communicated to all stake holders and collective efforts are made to implement them smoothly and create a harmonious environment.

#### **CRITERION VII: INNOVATIONS AND BEST PRACTICES**

The building of Shivaji College is designed in such a way that it has very well lit classrooms, staff room, laboratories and office. The college initiated a significant measure to reflect its environmental consciousness by making the campus vehicle free. This initiative not only inculcates eco-friendly attitude and behaviour amongst the faculty, administrative staff and students but has also made the campus pollution-free. The institution had a green audit of its campus by State Level Expert Appraisal Committee (SEAC) in the year 2013.

A number of steps have been taken to make the campus eco-friendly. For instance, in order to reduce paper consumption, both the sides of paper are used. There is an emphasis on the use of paper bags and cloth bags, which can be reused/ recycled and are bio-degradable. Student members of Eco Club recycle the waste paper. New lithium batteries are bought through exchange policy. The college celebrates *Van Mahotsava* and has adopted the practice of planting saplings on Teacher’s Day. Recreational and Botanical/Herbal gardens are two major attractions of the college. College collaborates with an NGO ‘Chintan’ to manage e-waste.

Shivaji College believes in innovation, use of latest technology, better governance, transparency and overall development of the students. High speed



Internet, Wi-Fi facility, highly sophisticated software, INFLIBNET and OPAC facilities are available for use of students and staff. Student Information System, Time Table Software, Online Security Refund System, Complaint Box, Counselling Cell are some of the key features of innovative measures taken by the college. CCTV cameras have been installed to strengthen the security system.

Infrastructure facilities are upgraded on a regular basis. Students and faculty from various departments are involved in a number of innovation projects. The college has adopted the PPP (Public Private Partnership) model to improve and maintain the sports ground. W.U.S. (World University Scheme) health centre in college premises provides medical services to the students, teaching and non-teaching staff along with their families. Inclusive Practices for SC/ST/OBC have been adopted and an Equal Opportunity Cell (EOC) has been established for differently abled students. The Enabling Unit of college ensures that every facility is provided to Persons with Disability.

The college has adopted the practice of promoting environmental consciousness through Eco Club and Clean Campus Committee. All the members participated in the “Swatchch Bharat Abhiyaan” initiated by the Govt. of India. WDC (Women Development Cell) was established in 2003. The Cell has taken steps towards generating gender sensitization, awareness of women's rights and the issue of the declining child sex ratio. Sensitizing women and creating gender awareness among students is one of the best practices adopted by the college.

## **SWOC ANALYSIS OF THE INSTITUTION**

Shivaji College is one of the most sought after institutes of higher education in the western part of Delhi. Education here is not viewed merely as classroom teaching, but as a means of inculcating values of humanity, brotherhood, equality and justice. The college aims at producing academically oriented, sensitive and responsible citizens who have a potential to contribute towards making the world a better place. The focus is on giving equal importance to curricular and co-curricular activities for an all round development of the students by equipping them with life skills.

### **STRENGTHS**

- Shivaji College is a co-educational institution imparting education in a large number of courses from all streams - sciences, technology, humanities and commerce.
- The college enjoys a nodal location on the Ring Road, close to Rajouri Garden Metro station and is well connected to all parts of Delhi and the neighbouring states.
- The college campus is a vehicle free zone. Parking facility has been created in a designated area in the sports complex to keep the academic area free from pollution.
- Drawing students from Delhi as well as from other parts of India. The college boasts of a culturally diverse student community fostering the ethos of cultural tolerance and national integration.
- Holistic and all round development of students is ensured through a well planned and executed system aiming at achieving excellence in academic and allied fields.
- Effort is made to integrate the curricular and co-curricular activities and students are motivated to develop an analytical aptitude.
- The multiplicity of the courses in the college facilitates interaction among students from diverse disciplines thereby helping them develop a multi-disciplinary approach.
- Continuous evaluation by means of class tests and assignments/presentations ensures identification of any weaknesses in the teaching-learning process and remedial measures are taken by teachers to make teaching more effective.
- Regular feedback is taken from students and efforts are made to resolve any shortcomings pointed out by them.

- College continuously upgrades the laboratory and other infrastructural amenities to ensure effective teaching and learning.
- There is a rich library with a large collection of books and is well equipped with latest technology support.
- Administrative functioning of the college is efficient and transparent and uses technology to a maximum possible extent.
- Time-table and attendance record of students is in public domain as the relevant information is put on the college website.
- A well maintained campus with manicured green lawns and a large number of trees provides an pleasant environment in the college.
- College has an active placement cell.

#### **WEAKNESSES**

- Introduction of any new academic programme is restricted due to limited resources and infrastructure.
- There is a need to increase the number of permanent faculty and the process has been rather slow during the last few years due to reasons beyond the control of the college.
- Availability and generation of financial resources is often a constraint in the expansion of infrastructure as well as for organising activities like seminars and conferences.
- There are limited research facilities.

#### **OPPORTUNITIES**

- College is planning construction of a new academic block in near future. This block has provision of research laboratories and it will give impetus to research activities.
- There is scope for developing consultancy services that will add to the financial resources of the institution. Expanding these services will also encourage the faculty to take up consultancy work that will add to their practical experience.
- The linkage with the industry and other organisations, having a potential to employ the students graduating from the college, can also be strengthened. It will help increase the job opportunities for the students.
- Shivaji College alumni have excelled in different walks of life. Their

support can be sought for networking with industry for student internships, placements and generating additional resources.

**CHALLENGES**

- Academic activities of the college are dominated by teaching and research gets a relatively lower priority. Most of the students in the college being under-graduate students, more focus is therefore given to cater to their needs and there is a limited scope of developing research activities. There is a need to find a better balance between teaching and research.
- Due to the need for approvals from multiple authorities, efforts of the college to construct new building block has slowed down.
- Regularisation of teaching positions is often delayed, due to administrative reasons.

## SECTION B: PREPARATION OF SELF-STUDY REPORT

### 1. PROFILE OF THE AFFILIATED/CONSTITUENT COLLEGE

#### 1. Name and Address of the College:

Name :	SHIVAJI COLLEGE		
Address :	RING ROAD, RAJA GARDEN		
City : NEW DELHI	Pin : 110027	State : DELHI	
Website :	www.shivajicollege.ac.in		

#### 2. For Communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. Shashi Nijhawan	O:011-25192505 R:011-26693049	9868183049	25155551	shashi.nijhawan@gmail.com
Vice Principal	Dr. Anita Kapur	O:011-25191458 R: 011-42341408	9899068060	-	anitakapur52@gmail.com
Steering Committee Co-ordinator	Dr. Tejbir Singh Rana	O:011-25191458	9818312789	-	ranatejbir@gmail.com

#### 3. Status of the Institution: Affiliated College Constituent College Any other (specify)

#### 4. Type of Institution:

##### a. By Gender

i. For Women

ii. Co-education

##### b. By Shift

i. Regular

ii. Day

iii. Evening

#### 5. It is a recognized minority institution?

Yes      No

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

#### 6. Sources of funding:

Government

Grant-in-aid

Self-financing

Any other



Section B: Preparation of Self-Study Report

7. a. Date of establishment of the college: 30/05/1961  
 b. University to which the college is affiliated /or which governs the college (If it is a constituent college): **UNIVERSITY OF DELHI**  
 c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks(If any)
i. 2 (f)	16-07-1961	
ii. 12 (B)	16-07-1961	

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

- d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	B.Tech (Computer Science)	Applied for Recognition to AICTE		
ii.				
iii.				
iv.				

(Enclose the recognition/approval letter)

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes                      No

If yes, has the College applied for availing the autonomous status?

Yes                      No

9. Is the college recognized

- a. by UGC as a College with Potential for Excellence (CPE)?

Yes                      No

If yes, date of recognition: ..... (dd/mm/yyyy)

- b. for its performance by any other governmental agency?

Yes                      No

If yes, Name of the agency ..... and

Date of recognition: ..... (dd/mm/yyyy)

10. Location of the campus and area in sq.mts:

Location *	URBAN
Campus area in sq. mts.	40,470 Sq.m.
Built up area in sq. mts.	11,216 Sq.m.

(\* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

- Auditorium/seminar complex with infrastructural facilities:  
Auditorium
- Sports facilities
  - \* playground ✓
  - \* swimming pool X
  - \* gymnasium X
- Hostel - **Not Available**
  - \* Boys' hostel
    - i. Number of hostels
    - ii. Number of inmates
    - iii. Facilities (mention available facilities)
  - \* Girls' hostel - **Not Available**
    - i. Number of hostels
    - ii. Number of inmates
    - iii. Facilities (mention available facilities)
  - \* Working Women's hostel - **Not Available**
    - i. Number of inmates
    - ii. Facilities (mention available facilities)
- Residential facilities for teaching and non-teaching staff (give numbers available — cadre wise)

**Teaching Staff Flats: 08**

**Non-teaching Staff Flats: 04 (Erstwhile Group 'D')**

- Cafeteria — **Available**
- Health centre – **Available**

First aid, Inpatient, Outpatient, Emergency care facility, Ambulance.....  
Health centre staff –

Qualified doctor	Full time ✓	Part-time	<input type="checkbox"/>
Qualified Nurse	Full time	Part-time	<input type="checkbox"/>

- Facilities like banking, post office, book shops: **Banking and Photostat available**

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- Transport facilities to cater to the needs of students and staff: **Not Available**
- Animal house: **Not Available**
- Biological waste disposal: **Not Available**
- Generator or other facility for management/regulation of electricity and voltage:

**Full Power Backup through generator set available**

- Solid waste management facility:
- Waste water management: Yes
- Water harvesting: Yes

12. Details of programmes offered by the college (Give data for current academic year)

SI. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under-Graduate	B.A. Prog.	3 years	XII	English	185	204
		B.Com Prog.	3 years	XII	English	92	84
		B.Com (H)	3 years	XII	English	92	91
		B.A. (H) English	3 years	XII	English	46	89
		B.A (H) Economics	3 years	XII	English	46	58
		B.A. (H) Geography	3 years	XII	English	46	57
		B.A. (H) Business Economics	3 years	XII	English	62	60
		B.A. (H) History	3 years	XII	English	46	62
		B.A. (H) Hindi	3 years	XII	English	46	77
		B.A. (H) Political Science	3 years	XII	English	46	70
		B.A. (H) Sanskrit	3 years	XII	English	46	55
		B.Sc. (H) Botany	3 years	XII	English	31	32
		B.Sc. (H) Biochemistry	3 years	XII	English	31	24
		B.Sc. (H) Chemistry	3 years	XII	English	31	49
		B.Sc. (H) Maths	3 years	XII	English	92	129
		B.Sc. (H)	3 years	XII	English	62	68

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		Physics					
		B.Sc. (H) Zoology	3 years	XII	English	31	32
		B.Sc. Prog. Life Science	3 years	XII	English	92	82
		B.Sc. Prog. Physical Science	3 years	XII	English	31	34
		B.Sc. Prog. Applied Physical Science	3 years	XII	English	62	49
2	Post-Graduate	M.A. (Hindi)	2 years	XII	English	20	24
		M.A. (Pol. Science)	2 years	XII	English	20	8
		M.A. (Sanskrit)	2 years	XII	English	20	9
3	Integrated Programmes PG	-	-	-	-	-	-
4	Ph.D.	-	-	-	-	-	-
5	M.Phil.	-	-	-	-	-	-
6	Ph.D.	-	-	-	-	-	-
7	Certificate courses	-	-	-	-	-	-
8	UG Diploma	-	-	-	-	-	-
9	PG Diploma	-	-	-	-	-	-
10	Any Other (specify and provide details)	-	-	-	-	-	-

13. Does the college offer self-financed Programmes?

Yes  No

If yes, how many?

14. New programmes introduced in the college during the last five years if any?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Number	01
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15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

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Faculty	Departments (eg. Physics, Botany, History etc.)	UG	PG	Research
Science	Bio-chemistry, Botany, Chemistry, Physics, Zoology, Computer Science, Mathematics	√		
Arts	Business Economics, Economics, English, Geography, History,	√		
	Hindi, Political Science, Sanskrit	√	√	
Commerce	Commerce	√		
AnyOther (Specify)	-	-	-	-

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

- a. annual system -  
b. semester system 24  
c. trimester system -

17. Number of Programmes with

- a. Choice Based Credit System   
b. Inter/Multidisciplinary Approach   
c. Any other (specify and provide details)

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes No √

If yes,

- a. Year of Introduction of the programme(s).....  
(dd/mm/yyyy) and number of batches that completed the programme  
b. NCTE recognition details (if applicable) Notification  
No.: ..... Date: ..... (dd/mm/yyyy)  
Validity: .....  
c. Is the institution opting for assessment and accreditation of Teacher Education Programme separately?  
Yes No √

19. Does the college offer UG or PG programme in Physical Education?

Yes No √

If yes,

- a. Year of Introduction of the programme(s).....  
(dd/mm/yyyy) and number of batches that completed the programme

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- b. NCTE recognition details (if applicable) Notification No.: ..... Date: .....  
(dd/mm/yyyy) Validity:.....
- c. Is the institution opting for assessment and accreditation of Physical Education Programme separately?  
Yes No ✓

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F				
Sanctioned by the UGC / University / State Government	-	-	196				67		60	
<i>Recruited</i>	-	-	24	29	24	37	35+16 <sup>#</sup>	5+2 <sup>#</sup>	36+9 <sup>#</sup>	3
<i>Yet to recruit</i>	-	-	-	-	82		27		21	
Sanctioned by the Management/ society or other authorized bodies	-	-	-	-	-	-	-	-	-	-
<i>Recruited</i>	-	-	-	-	-	-	-	-	-	-
<i>Yet to recruit</i>	-	-	-	-	-	-	-	-	-	-

\*M-Male \*F-Female #Contractual Appointments

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent teachers</b>							
D.Sc./D.Litt.	-	-	-	-	-	-	-
Ph.D.	-	-	20	21	11	21	73
M.Phil.	-	-	1	5	8	9	23
PG	-	-	3	3	5	7	18
<b>Temporary teachers</b>							
Ph.D.	-	-	-	-	17	18	35
M.Phil.	-	-	-	-	9	10	19
PG	-	-	-	-	6	17	23
<b>Part-time teachers</b>							
Ph.D.	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-

22. Number of Visiting Faculty /Guest Faculty engaged with the College.

**Guest Faculties engaged: 11**

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23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	2010-11		2011-12		2012-13		2013-14	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	311	56	255	65	387	91	456	115
ST	67	12	80	10	86	13	93	16
OBC	224	44	360	61	448	71	601	108
General	1373	625	1569	693	1336	1048	1042	1073
PH	12	01	13	0	14	01	17	02

24. Details on students enrollment in the college during the current academic year:

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	881	30	-	-	911
Students from other states of India	513	11	-	-	524
NRI students	-	-	-	-	-
Foreign students	12	-	-	-	12
Total	1406	41	-	-	1447

25. Dropout rate in UG and PG (average of the last two batches) UG **(Negligible)** PG **(Negligible)**

26. Unit Cost of Education

*(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)*

**(a) including the salary component**

**Rs. 72220.00**

**(b) excluding the salary component**

**Rs. 19426.00**

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes No

If yes,

a) is it a registered centre for offering distance education programmes of another University

Yes No

b) Name of the University which has granted such registration: **Not Applicable**

c) Number of programmes offered

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d) Programmes carry the recognition of the Distance Education Council.

Yes  No  N/A

28. Provide Teacher-student ratio for each of the programme/course offered  
Teachers:

S. No.	Department/Courses	Ratio Student : Teacher
1	B.A (H) Economics	24:1
2	B.A. (H) Business Economics	30:1
3	B.A. (H) English	18:1
4	B.A. (H) Geography	16:1
5	B.A. (H) Hindi	15:1
6	B.A. (H) History	24:1
7	B.A. (H) Political Science	18:1
8	B.A. (H) Sanskrit	24:1
9	B.Sc. (H) Biochemistry	9:1
10	B.Sc. (H) Botany	15:1
11	B.Sc. (H) Chemistry	15:1
12	B.Sc. (H) Maths	19:1
13	B.Sc. (H) Physics	16:1
14	B.Sc. (H) Zoology	10:1
15	B.Com (H)/(P)	40:1
17	B.Tech (Computer Science)	5:1

29. Is the college applying for

Accreditation: Cycle 1  Cycle 2  Cycle 3  Cycle 4

Re-Assessment:

*(Cycle 1 refers to first accreditation and Cycle 2, Cycle 3 and Cycle 4 refers to re- accreditation)*

30. Date of accreditation\* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only) **Not Applicable**

31. Number of working days during the last academic year: 243

32. Number of teaching days during the last academic year: 172

*(Teaching days means days on which lectures were engaged excluding the examination days)*

33. Date of establishment of Internal Quality Assurance Cell (IQAC) IQAC  
03.02.2015 (dd/mm/yyyy)

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC – **Not Applicable**

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information)



## **CRITERION –I: CURRICULAR ASPECT**

### **1.1 CURRICULUM PLANNING AND IMPLEMENTATION**

#### **1.1.1 State the vision, mission and objectives of the institution and describe how these are communicated to the students, teachers, staff and other stakeholders.**

**Vision:**

Shivaji College aims to attain excellence in all aspects and aspires to become a premier institution of higher education, by creating healthy and congenial academic environment, helpful for innovation and experimentation. Quest for knowledge, freedom of expression and respect for culture is the hallmark of the college.

**Mission:**

Shivaji College believes in attaining curricular and extra-curricular excellence. Here, emphasis is laid on all round integrated development of students. The mission of the college is to provide academic excellence in the fields of science, commerce and humanities. The spirit of scientific enquiry is encouraged, and students and faculty are motivated towards continuous research and learning. The college has facilities which include laboratories, computers, projectors and trained teachers for instruction. The college encourages competitiveness and a yearning for perfection. The objective is to inculcate the potential of students, so they venture beyond the set curriculum. The college believes in recognizing, encouraging and nurturing diverse talents and aptitude of the students. Skills for practicable application of knowledge are also imparted, aiming at the holistic development of the students.

**Objectives:**

Shivaji College promotes equality of education, irrespective of social class, gender, religion and caste. The major aim is to transform responsible citizens, and to inculcate moral values, to better the society. We empower the students to face challenges as decorous, accountable and dutiful citizens, and prove to be an asset to the society. Having adequate infrastructure for extra-curricular activities and sports, the college promotes physical and intellectual agility in the institution. The concept of parallel education runs deep into our curriculum and to achieve this target we organize seminars, symposiums, conferences and other academic events. This facilitates interaction between students and eminent personalities from academics, sports, media and diverse backgrounds.

The vision of the college is communicated to the teaching and non-teaching staff, parents and guardians, alumnae and other stakeholders such as industry and social service partners. This is achieved through the college website, prospectus, meetings, interactions during staff council and staff association meetings, the reunion of alumnae, seminars and extra-curricular activities held in the college. The mission of Shivaji College is aptly reflected in the college motto “**Amritam tu vidya**” (Education is eternal or a never-ending process).

**1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).**

The College prepares a detailed prospectus which contains information regarding courses, curriculum, fee structure, achievements, and activity calendar for every semester. Moreover, it also informs students about ordinances (issued by University of Delhi) related to sexual harassment, anti-ragging, indiscipline and attendance. The first day of every academic year is the Orientation Day which is open for both students and their parents to attend. In this Orientation Programme, the faculty members are introduced to the students. Every department holds an individual orientation programme, where the academic calendar and the time table of the department is communicated to the students. If, for any reason, a faculty fails to finish his/her syllabi within the stipulated time, he/she takes extra classes for his/her subject. Well-equipped science laboratories, well-stocked library, state-of-the-art computer labs with Wi-Fi connectivity are offered to all the students and faculty. Wi-Fi logins are also provided to all the students to access e-journals and online database, subscribed by the University of Delhi. There are four air conditioned computer labs that are accessible to students and teachers for internet access. The college library has a vast collection of 86,594 books in various disciplines, and of general interest. The library also has subscribed to over sixty periodicals, popular magazines, encyclopaedias, journals and newspapers. The library also provides access to online journals and has an online Public Access Catalogue (OPAC) and information kiosk. The college library has availed the membership of INFLIBNET, which provides one lakh e-books and seven thousand e-journals. There is a spacious reading room in the library which provides internet access to students and faculty. The College auditorium which is fully air-conditioned, with state-of-the-art audio-visual system and stage lighting arrangements and a seating capacity of around 300 students gives the appropriate

infrastructure to most of the departments, to organize curricular activities like national and international seminars. Two photocopy machines are available within the college premises, where photocopying facilities can be availed at subsidized rates. Most of the classrooms in the college have LCD Projectors, to assist the audio-visual mode of teaching. The college website is updated regularly.

**1.1.3 What type of support (procedural and practical) do the teachers receive (from the university and/or institution) for effectively translating the curriculum and improving teaching practices.**

University circulars, letters, e-mails are displayed on the college website and staff notice boards, and circulated among the teaching staff. All the information is disseminated further to the respective departments through teacher-in-charge. The Principal also holds meetings with the respective teachers-in-charge from time to time, to trace the progress of the curriculum and to discuss strategies for effective implementation of curriculum. The teachers are encouraged to enhance their core teaching skills by participating in seminars, symposiums, major and minor research projects, field visits and other faculty improvement/orientation programmes. Full co-operation of all members of the college facilitates all such ventures. The college has various committees like Discipline Committee, Library Committee, Cultural Committee, Women Development Cell, Equal Opportunity Cell, Grievance Cell, Placement Cell, College Complaints Committee (against Sexual Harassment), Student Advisory and SC, ST & OBC Counselling Committee. The assignments undertaken by these Committees helps in understanding the pragmatic issues related to students at the micro level. These committees are formed in the staff council meeting held during each academic session. All the teachers are active members of the above listed committees. There is a provision in the college for trips undertaken by students under the guidance of teachers, to understand man-nature interaction under environmental studies. This is compulsory for all college students of the first year. Departments like Botany, Business Economics, Geography and Zoology conduct study tours every year as part of their curriculum set by the University. The college has organized trip to environmental sites. The list of study/excursion trips and other necessary details are attached as **Appendix 1.1**

**1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other Statutory agency.**

It is ensured that academic resources are in place and classes are taken regularly throughout the academic session. Various committees like the Development Committee and the General Purchase Committee work round the clock to ensure that all the infrastructural facilities are in place. These two committees seek inputs from the Time Table Committee, to understand the infrastructural needs of each department of the college. All the teachers are actively involved in curriculum delivery and growth of curriculum, by regularly attending Orientation and Refresher programs, as well as workshops organized by the University and such other organizations. The faculty is also involved in syllabus-revision and preparing of reading materials, by working in close association with its parent-departments. Regular department meetings are organized to keep the teachers abreast with newer curricular developments. This also becomes a forum for interactive discussions, around the same.

**1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalization of the curriculum?**

The various departments of the college organize workshops, seminars and conferences at national and international levels, in order to inculcate the ability to understand curriculum development and its effective operationalization. The college organizes seminars and workshops in collaboration with university departments, National Institute of Disaster Management, Department of Science and Technology, Department of Biotechnology, NGOs and other institutions to address areas related to science, environment, gender, culture and society. The college has a very active Placement cell that not only helps students in getting internships and jobs, but also works towards making them employment ready. All departmental societies conduct academics programmes, seminars and industrial visits for interaction with the industry and companies like IBM, Genpact, and Capital IQ. **Appendix 1.2** provides a detailed information regarding placements.

**1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University? (Number of staff members/departments represented on the Board of studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.)**

The college has no formal provision as set by the University of Delhi on student's, teacher's and other stakeholder's feedback. However, the faculty members were involved in course and core committee meetings held by the parent departments under the University of Delhi during the introduction of three year semester undergraduate programme and four year undergraduate programme. Extensive details of the same can be found in **Appendix 1.3**. They take active part in framing, modifying and implementing the university syllabus of the undergraduate courses. They also play a pivotal role in setting the guidelines of the theory and practical examinations in all disciplines. Majority of the college faculty is involved in setting theory papers for the various undergraduate courses at the university level.

**1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give the details on the process ('Needs Assessment', design, development and planning) and the courses for which the curriculum has been developed.**

No, the college does not develop any curriculum for any of the courses offered outside the affiliated University.

**1.1.8 How does institution analyse/ensure that the stated objectives of curriculum are achieved in the course of implementation?**

The faculty members do their utmost to cultivate fortitude of enquiry, a critical outlook and an analytical approach among the students. While teaching, teachers take special care to keep the students abreast of latest researches/developments in the respective disciplines taught by them, so that their knowledge base remains updated. OPAC services, online and academic journals are utilised by the students regularly, so that they can be familiar with the latest developments in their field of study.

The departmental meetings are held at the commencement of every academic session. In these meetings, the entire curriculum is distributed among the teachers. The time tables of respective departments are prepared before the academic session starts and the

individual teacher makes his/her own plan which eventually helps in completion of the curriculum on time. Students are continuously evaluated with the help of internal assessment exams, oral/seminar presentation, assignments/projects and group discussions. The college has to strictly follow the academic calendar and finish the syllabus for each course in the given time period.

## **1.2 ACADEMIC FLEXIBILITY**

### **1.2.1 Specify the goals and objectives; give details of the certificate/diploma/skill development courses etc., offered by the institution.**

The institution does not provide any such course. However each academic course is taught in a way that helps students develop a practical approach to dynamic problems, thereby enhancing their skills.

### **1.2.2 Does the institution offer programs that facilitate twinning/dual degree? If 'yes' give details**

No such provisions exist in the ordinances of University of Delhi

### **1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skill development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:**

- Range of Core/Elective options offered by the University and those opted by the college
- Choice Based Credit System and range of subject options.
- Courses offered in modular form
- Credit transfer and accumulation facility
- Lateral and vertical mobility within and across programmes and courses
- Enrichment courses.

#### **Range of Core/Elective options offered by the University and those opted by the college.**

The college offers 18 core options to its under graduate students for the award of the Bachelor with Honours/ Programme Degree in a semester system.

- PURE SCIENCES: Botany, Chemistry, Mathematics, Physics and Zoology.
- APPLIED SCIENCES: Biochemistry, Computer Science.

- ARTS: Business Economics, Economics, English, Geography, Hindi, History, Political, Science, Physical Education and Sanskrit.
- COMMERCE STREAM: Commerce.  
Post graduate courses in Hindi, Political Science and Sanskrit are also taught in the college.  
B. Tech in Computer Science is technical course offered by the college.

### **Elective Options**

Elective Options offered by the institution for various courses is strictly in accordance with University guidelines.

### **Choice based Credit System and range of subject options**

As per the semester system, the provision for a choice based credit system or credit transfer and accumulation has not been implemented by University of Delhi. Hence the college is unable to introduce such schemes. In accordance with the University of Delhi guidelines the students are instructed to take up admissions in the Honours course or Programme/General courses according to their choice, for a period of three years at the B.A. / B.Sc. / B.Com. level. A number of course combinations are set out by the University which the students have to choose from, by stating their preference (Disciplined Centred Courses). A compulsory course in Environmental Studies is also offered to students from all streams.

### **Courses offered on modular form**

Not Applicable

### **Credit transfer and accumulation facility**

The institution itself does not offer such facility as the University does not allow this.

### **Lateral and vertical mobility within and across programmes and courses:**

The scope of switching from one course to another is rigid in nature. Thus, flexibility remains rather limited as the University guidelines do not allow it. However, after taking admission the students are given a month's time to change their subject combinations (for B. A. Programme and B. Com courses only). Successful pursuit of the three year programme leads to the award of the Bachelor with Honours/

Programme Degree. Students enrolled in B. Tech. (Computer Science) are awarded the degree after four years.

**Enrichment courses:**

None of such courses are offered by the university

**1.2.4 Does the institution offer self-financed programmes? If ‘yes’ list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary, etc.**

The college offers B. A. (Honours) Business Economics (B.B.E) which is a self-financing course. The admission to this course takes place through a written exam (conducted centrally by the parent University) followed by counselling sessions who pass the exam at the University of Delhi. The faculty of the BBE department in the college consists of three assistant professors appointed by a selection committee out of the ad-hoc panel of candidates provided by the parent department. The academic qualification of teachers, salary and other such parameters are bound by UGC guidelines. It is a course which is a blend of interdisciplinary area of Economics, Management and Finance. The department also conducts annual industrial trip, in accordance with the curriculum. The department invites renowned speakers from various fields of knowledge to seminars, workshops and presentations organized on different topics related to Economics, Commerce and Career Management, to enhance their overall expertise. A majority of students have been placed in reputed companies like Protiviti, Genpact, Mercer, Capital IQ, AON Hewitt & others. Many of the students opt for higher education (Masters) in various universities in India and abroad. The fee structure of B. B. E course is attached in **Appendix 1.4.**

**1.2.5 Does the College provide additional skill oriented programmes, relevant to regional and global employment markets? If ‘yes’ provide details of such programme and the beneficiaries.**

No additional skill oriented courses are offered by the college. However, the college offers B. Tech in Computer Science which is specifically designed to offer its students good employment opportunities after successful completion of the course. All other undergraduate and post graduate courses offered by the college gives its students suitable career opportunities. During the placements, the college invites various reputed corporate houses to absorb students in their organizations. The college also organizes workshops, seminars



and lectures for students to develop and shape their skills according to the need of the job market. The departments also conduct industry visits, site visits, educational tours to give the students first-hand experience and knowledge of relevant field. A workshop on English Enhancing Communication Skills and UGC NET coaching was arranged for students during the year 2013.

**1.2.6 Does the University provide for the flexibility of combining the conventional face-to-face and Distance Mode of Education for students to choose the courses/combination of their choice” If ‘yes’, how does the institute take advantage of such provision for the benefit of students?**

There is no provision under the University of Delhi for distance mode of education for the regular students. Nonetheless, University of Delhi has introduced the concept of virtual classrooms where the lectures / sessions are conducted using internet thereby enhancing teaching and learning process.

**1.3 CURRICULUM ENRICHMENT**

**1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?**

At Shivaji College, we believe that the goal and objective of the College should be the overall development of the student. The student has to involve himself/herself both at the level of the curricular as well as the extra-curricular. The college tries to give the students an exposure keeping this perspective in view. For achieving this goal, various committees are put in place well before the academic session starts. Such committees ensure that each and every functional activity of the college is carried on under the expert guidance of the teachers. The college has various students’ societies as well as National Cadets Corps (NCC) and National Service Scheme (NSS) units running comprehensive programmes for the betterment of the students in particular, and society at large. The college also constitutes committees like SC/ST/OBC Counselling and PwD Counselling Committee, North-East Students’ Counselling Committee, Equal Opportunity Cell and the Grievance Cell, for addressing the special needs of the students.

Enlisted in **Appendix 1.5** are various committees, which work round the clock, for the prompt execution of various activities in college.

### 1.3.2 What are the efforts made by the institution to modify, enrich and organize the curriculum to explicitly reflect the experience of the students and cater to needs of the dynamic employment market?

Shivaji College has a very active Placement Committee. The Committee not only coordinates placements, but also conducts seminars in order to inform students about emerging job markets. Student placement coordinators are appointed from the final year students of each stream to be part of the placement committee. This committee trains students in various activities like ‘The art of writing CVs’, ‘Career opportunities in finance sector’ etc. Not only does this give them the required inputs, but also goes miles in improving their confidence levels.

The active NCC Wing of the College works as a catalyst for students who intend to join armed forces. Certain vacancies in IMA and OTA are reserved for NCC ‘C’ certificate holders. It also make students eligible to face the SSB interview directly.

Various student societies like **Vayam** (Theatre Society), **Vibgyor** (Fine Arts Society), **Shutterbugs** (Photography Society), **Footloose Society** (Dance Society), **Bizarre** (Fashion Society) and **Reverb** (Music Society) are oriented to assist students to enrich their creative potential. Participation in these societies ensures their possibility of interacting with the dynamic job market with confidence and creative aptitude.

### 1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc. , into the curriculum

Apart from giving emphasis on such topical issues as part of curricular training (many of these issues are covered in the syllabus) Shivaji College has many forums, where such issues are not only highlighted, but also that students are given direct exposure around it. The Women Development Cell is very active in the college. It organizes self-defence training workshops, debates, talks on gender sensitization, and health camps on a regular basis. At Shivaji College, **Jijabai Awards** have been instituted on an annual basis, for people who have worked on the subject of women empowerment. During the annual cultural festival of the College, titled as ‘**VIBRATIONS**’, which is a very well attended affair, important societal issues are highlighted by various cultural societies. The College has also launched an initiative called the ‘**Peace People Society**’ - a specific Shivajian initiative, which stands tall in the University of Delhi as a forum for College youth to be involved identifying the forsaken homeless women and escort them to

shelter home “**Sudinalya**”, centers with the support of the rescue teams and local police. The College in collaboration with National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India organized discussions on “Gender Mainstreaming in Disaster Management” to anchor the knowledge and research in the domain of specific disciplines like gender sensitive disaster management approach etc. and to provide greater interaction and interface amongst these disciplines. Eco Club, run in coordination with the Department of Environment, Government of Delhi, is also a very active organ of the College, working for the sensitization of students and staff towards their environment. The various departments organize outdoor excursions to help students attain practical information about environmental and sociological issues. The eco-club has installed suitable equipment to recycle paper. This activity is executed by students under the expert guidance of the teachers. In addition to this, a herbal garden has also been set up, with an objective of promoting good health practices. Various herbal plants with medicinal properties are planted in the garden, situated within the college premises. NCC and NSS units also play a pivotal role in bringing awareness on sociological issues. Cleanliness drives are often undertaken by the NSS unit of the college, to generate awareness about the general hygiene and to keep the college premises and its surroundings clean. Blood donation and motivational camps are also organised by the NSS unit of the college. ICT plays an equally important role in keeping students well informed about socio-economic, cultural, political and other issues with appropriate use of facilities like Wi-Fi, OPAC and INFLIBNET.

**1.3.4 What are the various value-add courses/enrichment programmes offered to ensure holistic development of students? moral and ethical values, employable and life skills, better career options and community orientation.**

**Moral and ethical values-** Healthy interaction between students and teachers means that the students can get guidance from a source that is sacrosanct in making the life of the student. The NSS unit of the college engages the students in community development activities, which motivate the students to take up the cause of social service.

**Employable and life skills-** The Placement Cell and various cultural societies of the college work towards the development of this facet, in the personality of the student. Students of various departments and cultural societies are allotted different responsibilities in organizing various events held at the college. This helps the students to improve their leadership, team building and organizational skills.

**Better career options-** The onus of opening up this arena for the students is done by the Placement Cell of the college, as well as interactive learning sessions being organized by the various departments, from time to time.

**Community orientation-** The NCC, NSS, WDC, Eco-Club etc. , are societies in the college, working towards such motives that would sensitize one and all about their responsibilities towards their community. A Clean Campus Committee is also in place at Shivaji College.

### **1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum.**

The curriculum of Delhi University revolves around the overall development of the student. At Shivaji College the stakeholders are actively involved in achieving this purpose. Each and every department has its individual student societies. All these departmental societies have regular meetings to discuss the trajectory that a department should follow throughout the year. Under the guidance of the teachers, student executives are appointed in every department. This goes a long way in achieving participative development at every level of college activities. Teachers also take feedback from the students, both written and oral, so that they become aware of the practical necessities of the students. The detailed information of the societies can be found in **Appendix 1.6.**

### **1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes.**

Students enroll in various cultural committees and compete for major events all over India. Workshops of various levels are organized, to provide students a platform to keep abreast with recent curricular and extra-curricular developments. The intra-departmental committees are constituted, to evaluate and monitor the extent to which enriching activities like theatre workshop, film screening, poster making and declamation, are beneficial for the students.

## **1.4 FEEDBACK SYSTEM**

### **1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?**

Several teachers of the college have been actively involved in designing and framing curriculum for various courses at the undergraduate level for the semester courses. The teachers during the

departmental meetings at the university give various suggestions, for developing the syllabus for different papers.

The college itself does not really have the freedom to incorporate new topics in the syllabus. However, all worthwhile suggestions are communicated to the concerned department, at the university. The design and development of the curriculum takes places centrally at the University level only.

**1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If ‘yes’, how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programme.**

Formally, there is no such mechanism prescribed by the university to obtain feedback from students. Nonetheless, a feedback form is filled up by the students from different courses, in order to evaluate the teaching methodology. Innovative measures are followed by the teachers to teach a particular curriculum. Students are also encouraged to submit their feedback regarding the functioning of the non-teaching staff, infrastructure related issues, library facilities and laboratories available for them in the college. The feedback/ suggestions are then discussed in the departmental meetings, from time to time. All these suggestions are then further communicated to the Principal of the college. The feedback form is attached as **Appendix 1.7**.

**1.4.3 How many new programmes/Courses were introduced by the institution during the last 4 years? What was the rationale for introducing new courses/programmes?**

The college introduced B. Tech (Computer Science) course under the FYUP introduced by University of Delhi in the year 2013-14. B. Tech course ensures good standard and solid technical knowledge, related to the field of Computer Science. It opens up wide career opportunities for its students, both in the areas of industry and research.

## **CRITERION II: TEACHING - LEARNING AND EVALUATION**

### **2.1 STUDENT ENROLMENT AND PROFILE**

#### **2.1.1 How does the college ensure publicity and transparency in the admission process?**

- The admission process in Shivaji College is highly transparent and consistent. The rules and regulations of the University of Delhi are strictly adhered to.
- Each application is processed and analyzed very carefully at many levels.
- The applications are judged on merit and marks are verified through the internet and CDs of various boards provided by the University.
- The entire admission process is presented in the college prospectus.
- The cut-off lists of various courses are displayed on the college and University websites. The same are also displayed on the college notice boards and made public in all leading national newspapers.

#### **2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.**

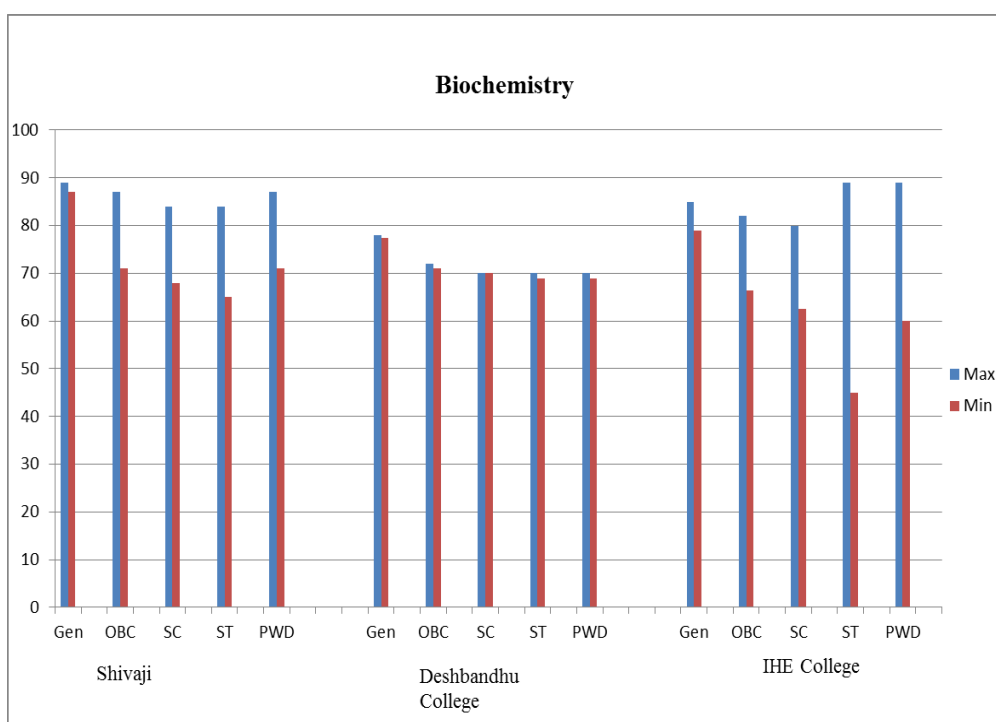
- The admissions are purely merit based. For admission to any course in the College, the candidates are required to fill the University centralized application form. The cut-offs of various courses are decided by the admission committee three days prior to the release of first cut- off list.
- Previously, for the admissions in B.A. (Hons.) English, the scores of applicants in the Common Aptitude Test conducted by Department of English, University of Delhi were considered. From 2013-14 onwards, University stopped conducting this entrance exam, therefore admissions are now given on the basis of the marks obtained by the candidate in Class 12<sup>th</sup>.
- Admission to Bachelor of Business Economics (BBE) is given on the basis of the marks obtained in class 12<sup>th</sup> and in the All India Entrance Test conducted by the parent department followed by a centralized counselling session. An equal weightage is given to marks obtained in both exams.

- Sports committee formulates guidelines, organizes trials and monitors the admission process for candidates seeking admission under the sports quota. To maintain transparency and quality, experts from outside the college are invited to judge the trials and participate in the selection process.

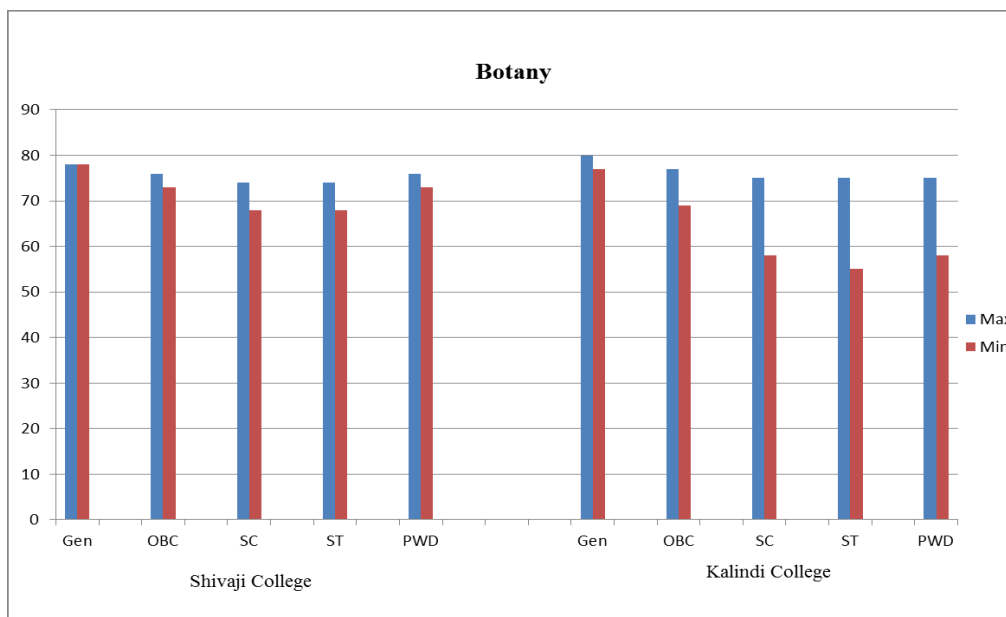
**2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.**

The cut-off list of the college (session 2013-14) along with few other colleges of University of Delhi is represented in the following graphs (figures 1-15)

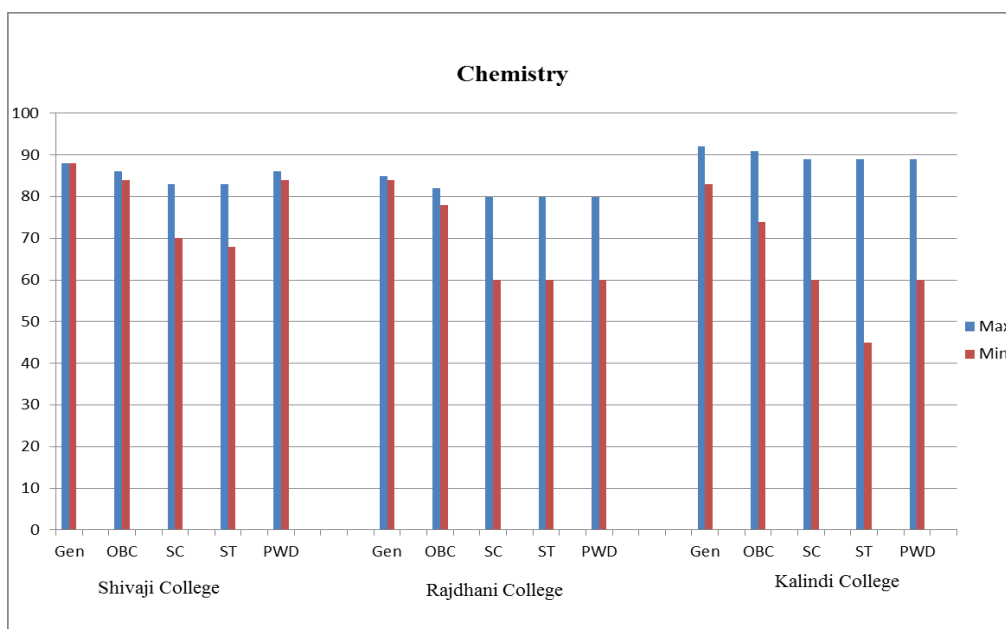
**Figure 1:**



**Figure 2**

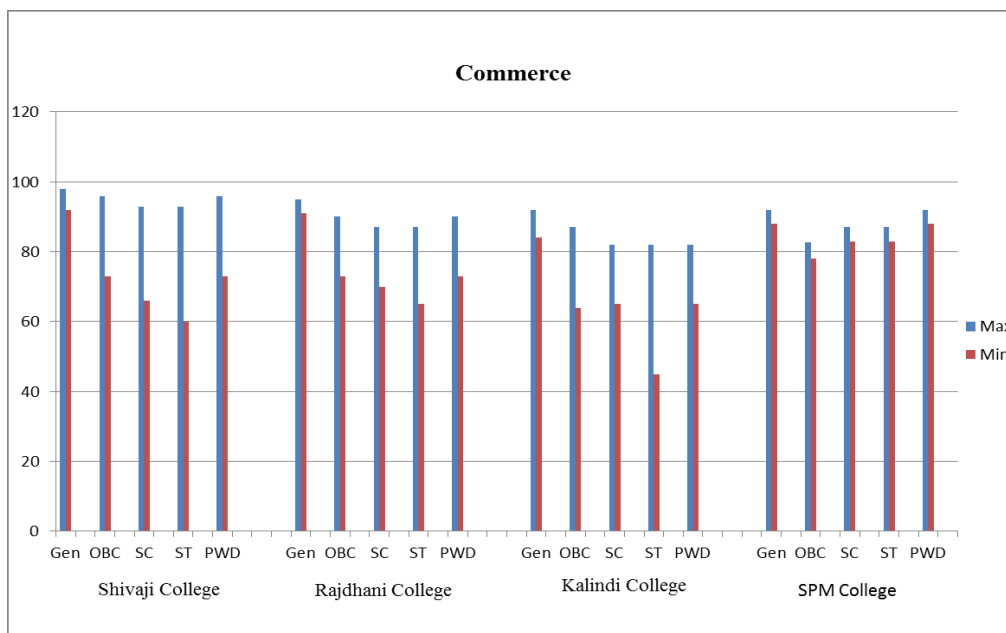


**Figure 3**

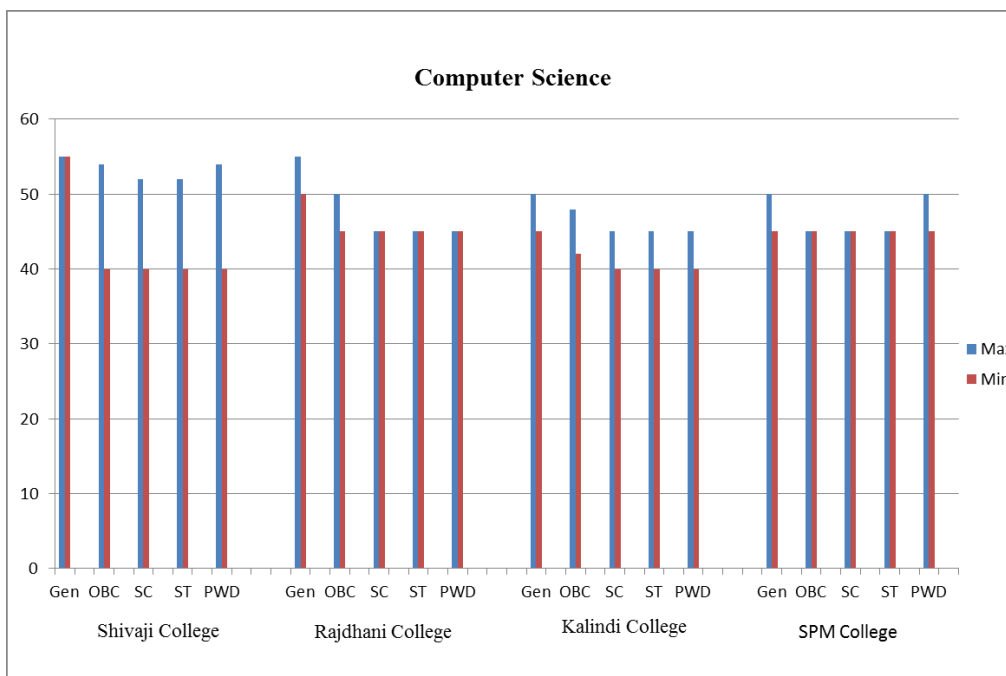




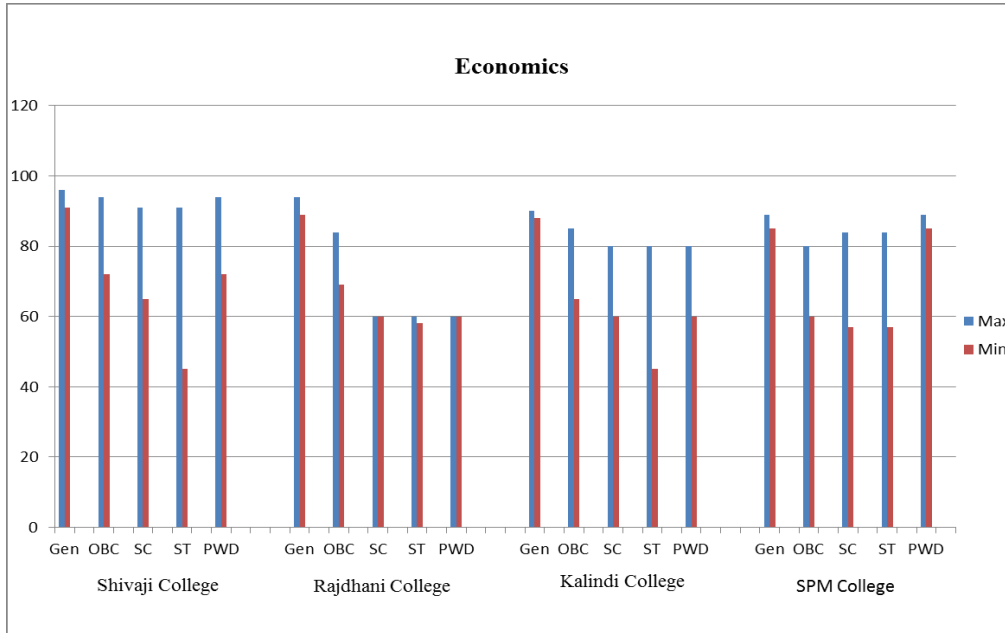
**Figure 4**



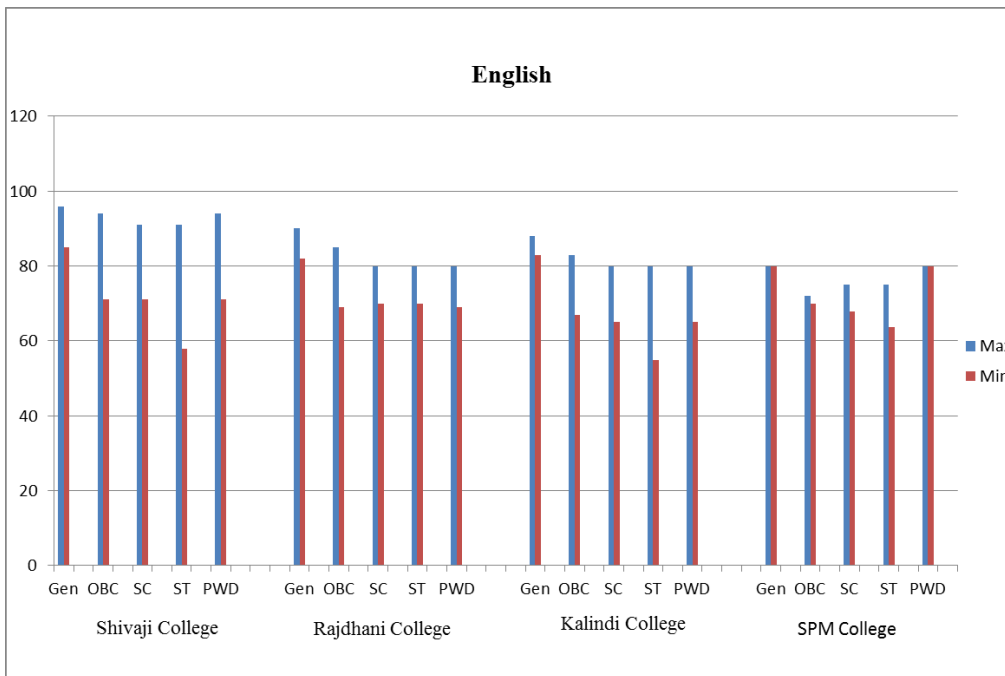
**Figure 5**



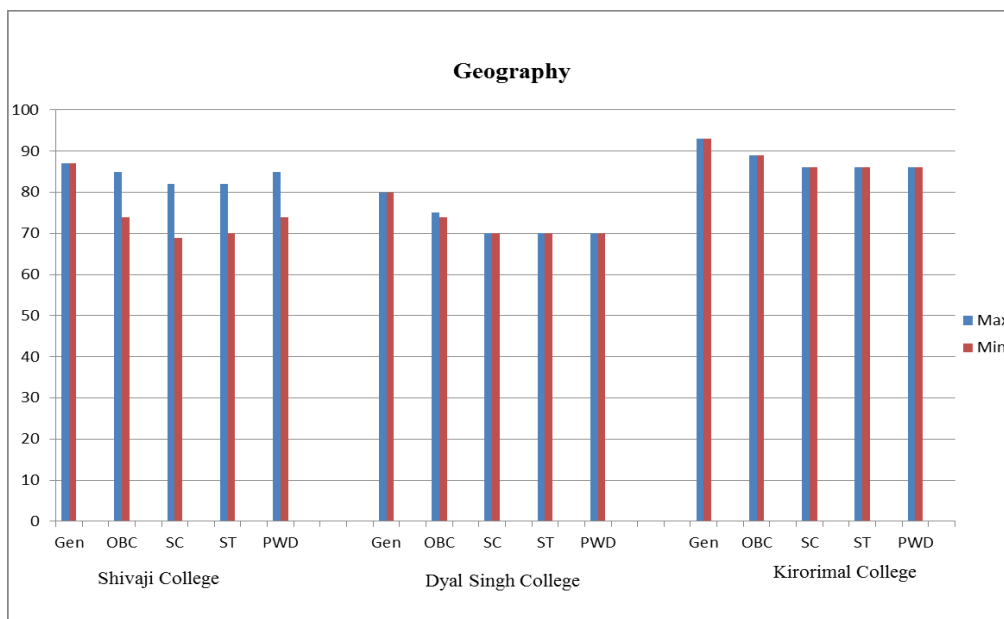
**Figure 6**



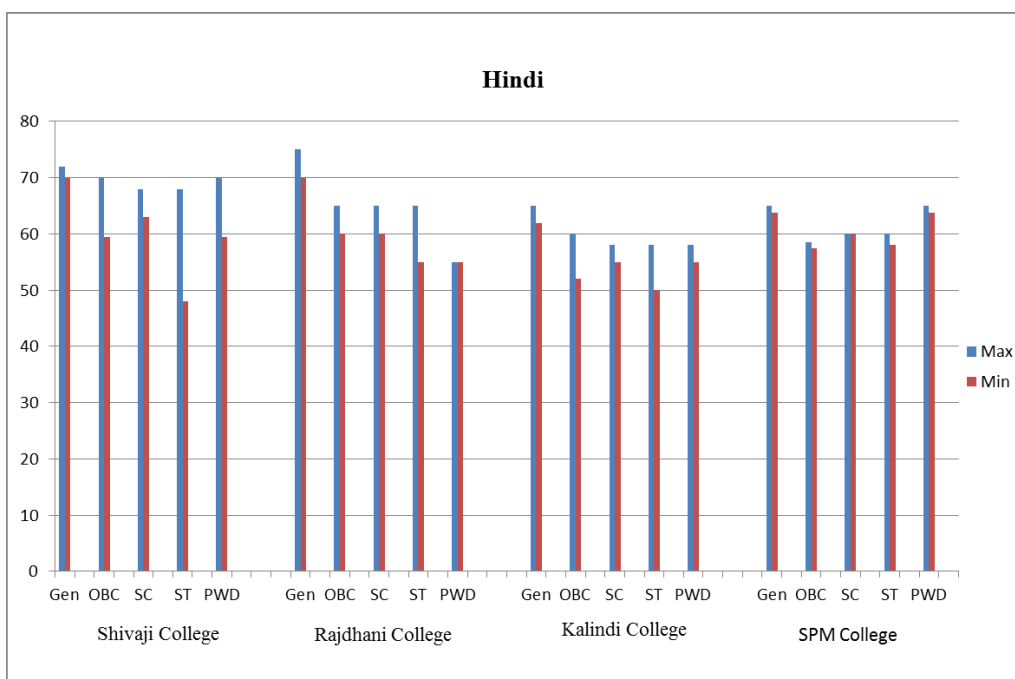
**Figure 7**



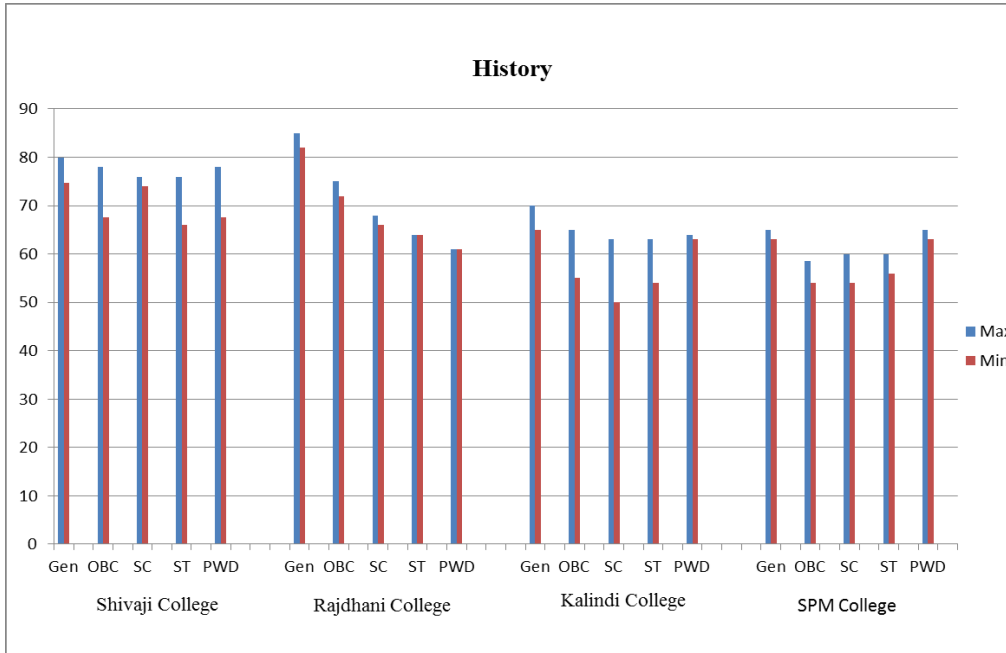
**Figure 8**



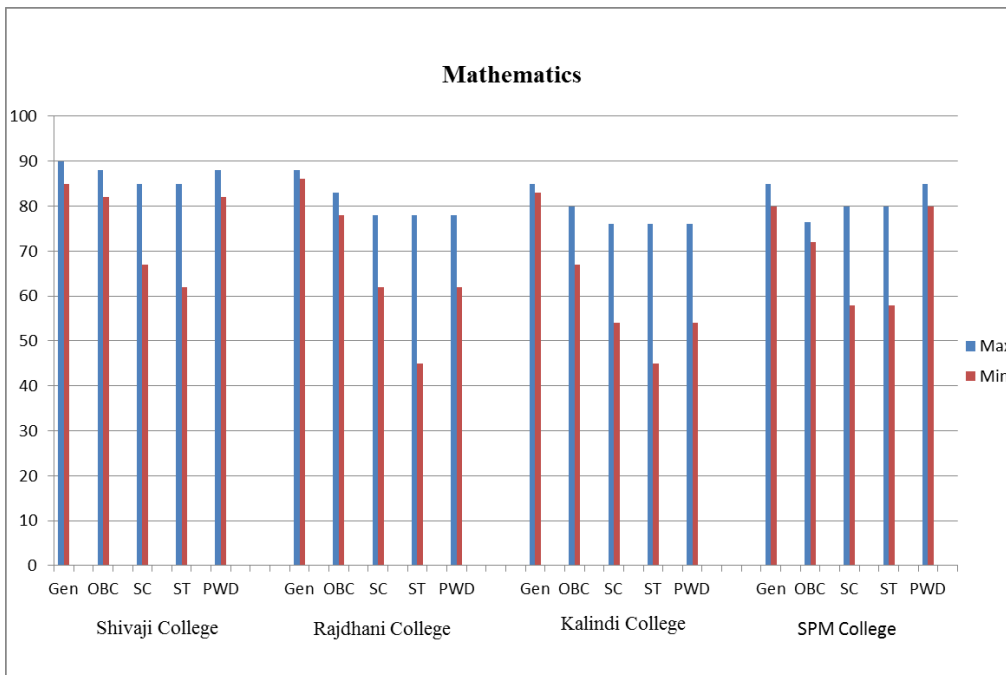
**Figure 9**



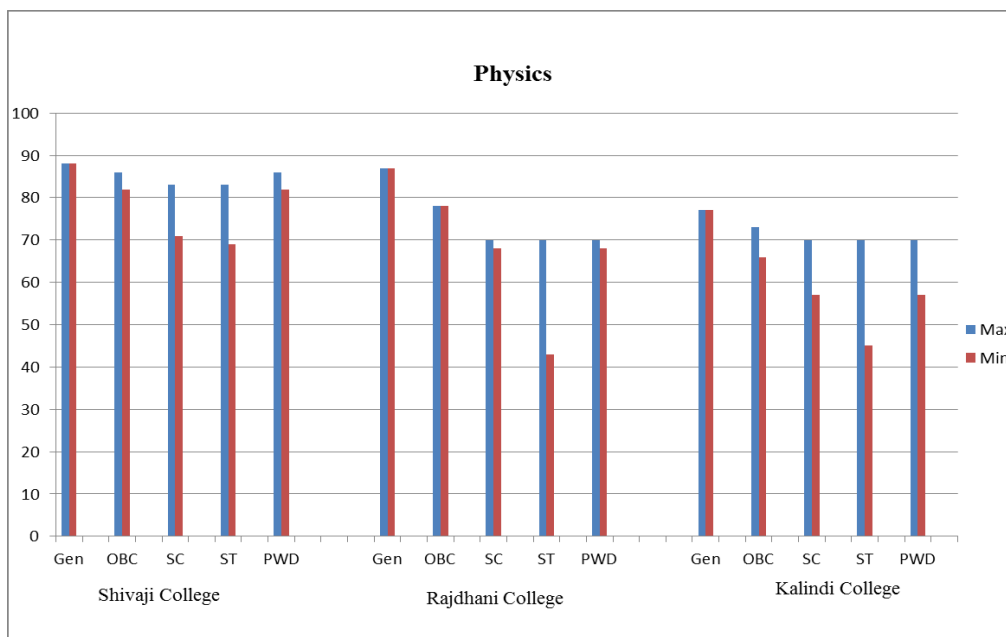
**Figure 10**



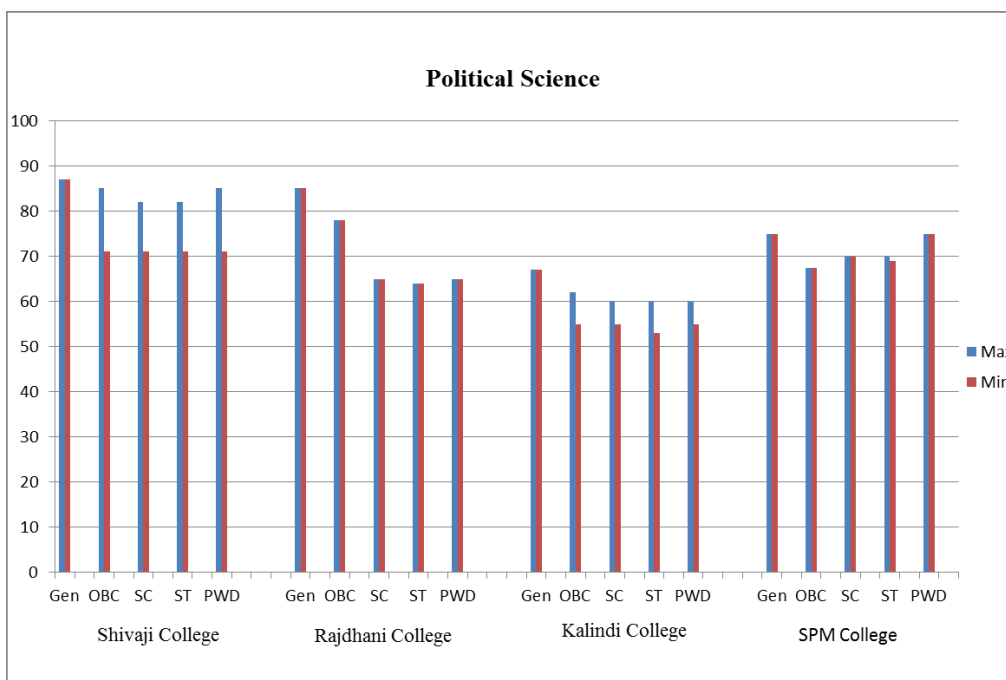
**Figure 11**



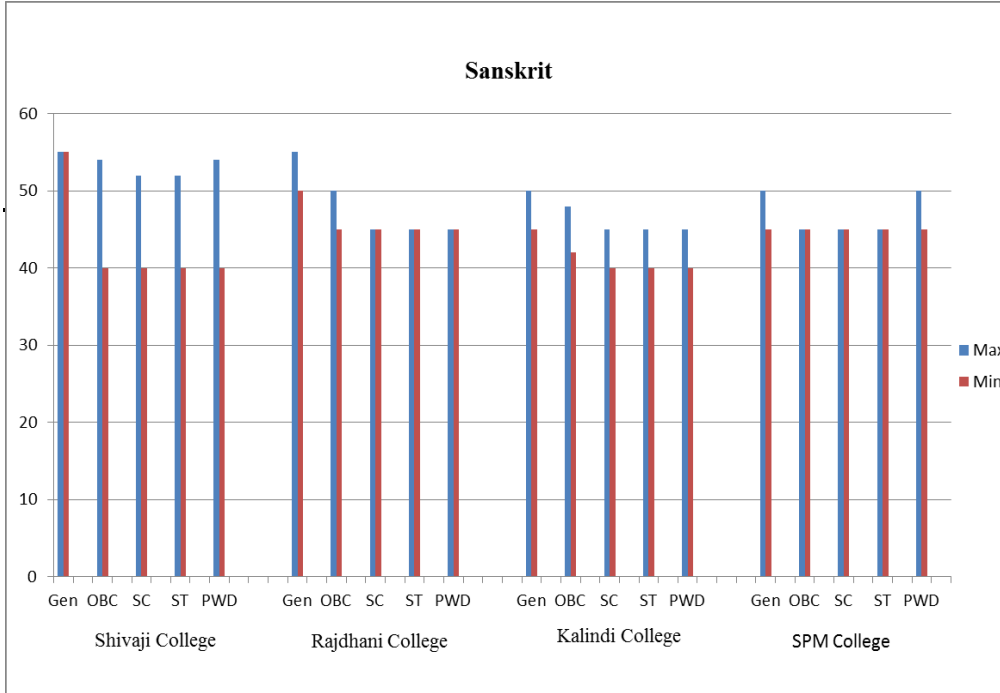
**Figure 12**



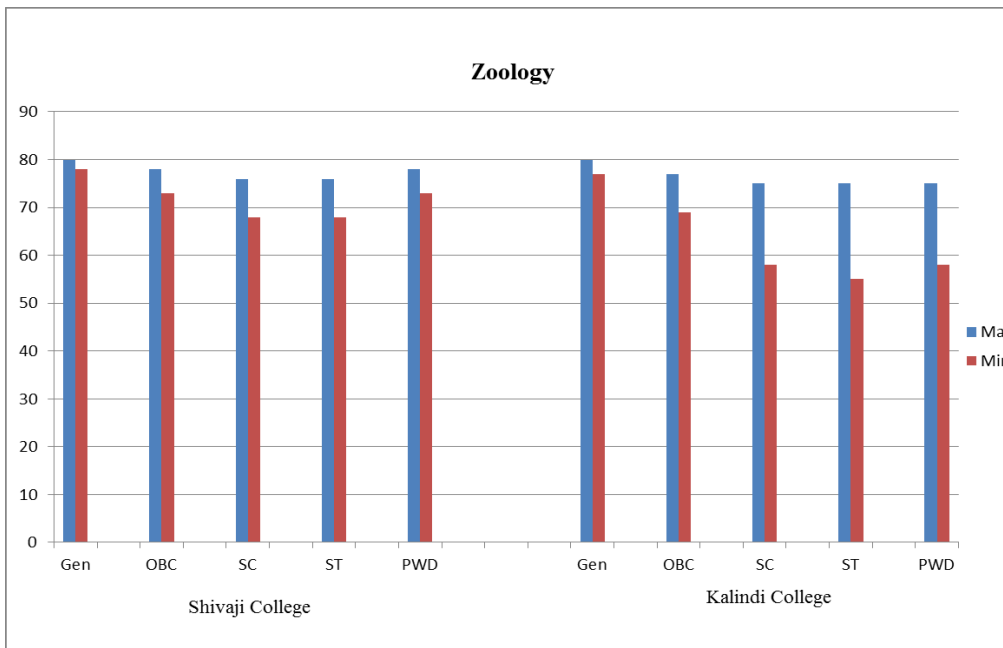
**Figure 13**



**Figure 14**



**Figure15**



**2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?**

The admission process is reviewed and necessary amendments are made wherever required during the college Staff Council meetings on an annual basis. To cite a particular example in this regard, before the admissions of 2012-13, the council decided to give a 5% relaxation to girl applicants in all the courses in the college to maintain the gender ratio. But this year, the decision was reviewed and it was unanimously decided by the Council to reduce the relaxation in cut-off for girl students to 3%. This was done keeping in view many factors like maintaining the quality of student intake and to compensate for the skewed gender ratio.

**2.1.5 Reflecting on the strategies adopted to increase/improve access for the following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion.**

- SC/ST
- OBC
- Women
- Differently abled
- Economically weaker sections
- Minority community
- Any other

The College believes in **inclusion** and providing **equal opportunities** to all. The college ensures that all sections of the society are taken care of at all levels.

- The college strictly follows the reservation policies of the Government of India for admission of students from SC/ST, OBC, PwD categories and Armed Forces/Foreign Students/Sports quota.
- Nominees of Nepal Government/Royal Government of Bhutan are given a maximum relaxation of 5% in the minimum marks for admission to various courses.
- Not more than 5% of total intake in each course is filled under Sports quota as per university rule.

- In addition to this, the college has been giving relaxation to women applicants since 2012. In the academic session 2012-13 and 2013-14, 5% relaxation in cut-off was given to women candidates. This was reduced to 3% in the year 2014-15.

**2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.**

Since the candidates seeking admission to colleges in Delhi University are required to fill in centralized admission forms, the students opt for a number of colleges and courses. Therefore, it cannot be stated clearly how many students seek admission to any particular course or college in the university.

**2.2 CATERING TO STUDENT DIVERSITY**

**2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?**

- The college strictly adheres to Government guidelines regarding differently-abled students and staff. The college sincerely endeavours to address the cognitive, physical, social and aesthetic needs of all students.
- **Our college is a vehicle-free campus which enables free and safe movement to all students including physically challenged.**
- The college has ramps to make movement convenient for physically challenged students. In examination, writers are provided to visually challenged students.
- Recently, one visually challenged teacher was appointed on a regular basis in the Department of English and the attendant to the principal has been assigned the duty of helping her to reach her classrooms. She is also assisted by other staff members and even student volunteers to move about in the college premises.
- The college library has many Braille books and there is a special section in the library for such students. Visually challenged students are provided with laptops equipped with Braille software.
- The college staff and students are sensitive enough to assist differently-abled students whenever required. The classes of such



students are held on the ground floor. The college ensures that each student gets equal opportunity of dignified and respectful learning.

- The college has **Equal Opportunity Cell** and **Grievance Redressal Cell** to look after the needs and requirements of differently-abled students and to sort out any problems that they face.
- An inter-college festival for physically challenged students was organized by the **Equal Opportunity Cell** in the college on 24th March 2012. A singing competition was organized for differently abled students in the annual cultural festival Vibrations-2014.
- To ensure that differently-abled students can participate in the whole curriculum, a proposal is already underway to install lifts in the college campus. Moreover, tiles and indicators will soon be installed to help visually challenged students.

**2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programmes? If 'yes', give details on the process.**

- During admission process, a **Student Counseling Committee** is set up to interact with the prospective students and guide them regarding the choice of courses, the curriculum and discuss the needs and aspirations of the candidates.
- A **Grievance Redressal Cell** is also set up during admission process which tries to resolve the problems of students from all categories. Any student, whether belonging to the reserved or unreserved category, can approach the cell for problems or queries concerning admissions.
- An SC/ST/OBC counseling cell and a cell for students from North-East have been set up to assist the students.
- On the very first day of the new session, an orientation programme for first year students and parents is organized in the college to make them familiar with the college environment and apprise them of all the facilities available, for instance bank, sports ground, library, cafeteria, auditorium, health center etc. along with all extracurricular activities that they can be a part of. The information regarding the internal assessment, attendance and various societies is provided. Convenors of the cultural societies are introduced. Students are also informed about anti-ragging committee,

discipline committee and college complaints committee (against sexual harassment).

- Orientation is followed by registration of students for various societies and activity committees such as Dramatics Society-Vayam, Photography Society-Shutterbugs, Music Society-Reverb, Fine Arts Society- Vibgyor, Dance Society- Footloose, Fashion Society-Bizarre, Public Speaking Society-Dictum, WDC (Women Development Cell), NCC (National Cadet Corps), NSS (National Service Scheme), Eco Club.
- Each department organizes its own orientation programme in assigned rooms to introduce the teachers and students to each other.
- Freshers' parties are organized in each department and by the Students Union where students showcase talents and skills in numerous ways.

**2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?**

- Knowledge is often distributed uniquely through a social system. The faculty understands the level of students' exposure and accordingly speeds up or slows down the pace of their lectures. In tutorials, the specific problems of students are addressed at an individual level and if needed, remedial classes are also fixed for students who face difficulty in keeping pace with the whole class.
- In 2012-13, special classes were held in the college for reserved category students to prepare them for the UGC's NET exam. Many teachers from the college taught these classes and trained the students in that course.
- The college also conducted English language courses for improving the proficiency in the language. This was held from August to November in 2012. Classes were conducted thrice a week for 1 hour 35 minutes and two teachers in the college taught classes under this programme. The course aimed at assisting students with poor speaking and writing skills in English language by approaching the language in a simple and effective manner. A theater workshop "Mask-Unmask" was arranged in the college, by the Department. of English in 2014 to enhance skills regarding the theory and practice of drama among the students.

#### 2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

The College has an NSS (National Service Scheme) wing, WDC (Women Development Cell), NCC (National Cadet Corps), EOC (Equal Opportunity Cell) and Eco-Club. Teacher-convenors to these bodies are appointed for two years at a stretch by the staff council. New students join these bodies every year and activities are organized round the year to encourage student's engagement with the community.

- **Gender Issues:** The College has a **Women Development Cell** which has done commendable work in the direction of gender issues in the past few years. It works towards the objective of generating awareness among its staff, students and general public over issues of immediate concern.
- The cell organized an **Organ Donation Sensitization Campaign** on 4<sup>th</sup> -5<sup>th</sup> September, 2013 to highlight the noble cause of organ donation. In order to inaugurate this campaign, Shivaji College organized a walkathon "**Walk for Life**", comprising of approximately 2000 participants including celebrities like **Ms. Jaya Prada** (Actor, Politician), **Mr. Murali Kartik** (Cricketer), students and general public. An awareness seminar conducted by **Dr. Ravi Mohanka** from **Medanta Hospital**, followed the successful walkathon and sensitized the college staff, students and general public regarding the procedures and prospects of organ donation.
- Besides the events of general concern, the cell also organized a **self-defense workshop** from 16<sup>th</sup> -20<sup>th</sup> September, 2013.
- **WDC** also organized an event "**Celebrating Womanhood**" at India International Center in which a panel discussion on sexual abuse and moral indifference was held.
- Each year, this cell gives "**Jijabai Awards**" to recognize and encourage some extraordinary women who have contributed towards social and moral resurrection of their underprivileged sisters. Six women in 2013 and eight in 2014 were felicitated with **Jijabai Awards** for their outstanding works.
- WDC organized talks entitled "**Literacy: A Gendered Reality**" on Teacher's day and "**It's time we walk for the Girl Child**" on International Day in the year 2012.

- It launched **Peace People Society** and won the prestigious “**Commendation Award for Good Practices**” in **Antardhwani**, the Annual Cultural Festival of University of Delhi.
- The students received training from UPF, FFWPU and WFWP (UN – India acknowledged agencies) and rescued women to **Sudinalay-A Rescue Home for Women in distress**.
- The First **International Conference** on Empowerment of Women in Developing Countries was held on 1<sup>st</sup> and 2<sup>nd</sup> April 2013.
- Women Development Cell of the college released a book titled “**Anujivami: I Survive**” in 2014. The book brings together real life stories of women who survived during tough times and adverse fortunes to transform their life into a tale worth inspiring millions. “**Anujivami: I Survive**” is a tribute to the undying spirit and emotional resilience of women.

### **Inclusion**

The college constantly endeavors to strengthen its capacity as an educational institution by providing equal opportunities to students from all socio-economic backgrounds.

- The college fills all the seats reserved for SC/ST/OBC and differently abled students and all the students are treated at par.
- The college has constituted a special committee to look after the problems of the students from North Eastern states. The college has a large number of students of Tibetan origin also
- The NSS Wing of Shivaji College has always worked to address pertinent social issues. The NSS Unit of Shivaji College is an active and vibrant unit. The NSS/NCC/Eco-club/WDC register student participants and volunteers during the orientation programmes at the beginning of the year.
- The team of enthusiastic students has made possible various projects and events like Project AKSHAR, which aims to encourage paper conservation and providing livelihood to deaf and dumb women, an Anti-Tobacco Campaign, Cancer Awareness programme and conducting of a Phenology Study.

### **Environment Issues**

The Eco Club of Shivaji college, *e- Saviours* works tirelessly to sensitize the students, faculty and non-teaching staff towards the environment issues.

- Annual excursions are organized under the Eco Club to educate students about the human impact on the environment. In 2010-11, 2011-12 and 2012-13 visits were organized to Yamuna Biodiversity Park, Delhi. In 2013-14, a visit to Tilyar lake, Rohtak was organized.
- College has a **paper recycling machine** and a large quantity of paper is recycled each month.
- **Van Mahotsav** is organized every year on Teachers' Day under which the whole college is encouraged to plant saplings.
- The college looks forward to install **solar panels** which will be helpful in the process of energy savings.
- Eco Club organizes e-waste collection drive. Several drop boxes are placed on the college campus to collect paper and e-waste. The lithium batteries are always exchanged with new ones to overcome the environmental hazard.
- **One World, One Environment** is the slogan of Eco Club and its aim is to practice the 3 R s – **Reduce, Reuse, Recycle**.
- A workshop on “**Development of Herbal Garden**” was organized in the college on 29<sup>th</sup> January 2015. Students and faculty from University of Delhi and other universities attended this workshop. This event marked the inauguration and beginning of a **herbal garden** in the college in which numerous herbal plants have been planted and nurtured. It is a unique endeavor by the faculty and students of Shivaji College.

#### 2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

Classes are heterogeneous and include students with differing ability levels.

- The faculty assesses and decides the pace of the lecture which is comfortable to all the students: Slow and Advanced.
- Advanced learners are encouraged at all levels in different ways like sending them to various workshops, internships, research projects and other good academic programmes, involving the students in innovation projects (Appendix 2.1), providing them with extra learning material and books etc.

### Research

- Appendix 2.1 provides a list of some of the Innovation Projects in which students and faculty from various departments are involved in the current academic session (Also, **ten students from different disciplines are involved in each project**).

### Scholarships

- **P.C. Ganguly Memorial Scholarship** of Rs. 3000/- is awarded to one student from each class in Economics Department. This is a merit-cum-need based scholarship.
- A Scholarship of Rs.3500/- is awarded to the student of B.Com (Hons.) third semester, who secures the highest percentage in aggregate in the second semester University examinations.
- **Dr. Usha Aggarwal Tejaswi/Tejaswini Scholarship**: The scholarship of Rs. 3000 each is awarded to the students of B.Com. (Honours) 2nd Year & 3rd Year each, who secure the highest percentage of marks (above 70% Aggregate) in college in the first attempt.
- **Satya Pal Bansal Memorial Scholarship** : A monthly scholarship of Rs. 1000/- is awarded to the best student on the basis of his/her examination results in the 1st year.
- **Kusum Vasal Memorial Gold Medal**: A gold medal would be awarded to the topper of B.Sc.(H) Physics, third year.
- **Dr. S.K.Nayyar Memorial Scholarship**: Two prizes would be awarded to top two students of B.Sc.(H) Zoology in the penultimate year of the degree course.
- **Scholarship to SC/ST Students by the Directorate of Education**: These scholarships are awarded by the Directorate of Education, Government of Delhi, to bonafide Scheduled Caste/Scheduled Tribe students belonging to Delhi, on receipt of completed applications submitted through the college.
- **All India Entrance Scholarship by the University of Delhi**: Delhi University holds a competitive examination in the month of October each year for the award of All India Entrance Scholarships of Rs. 250.00 per month, each tenable for three years. Any Honours course student with at least an aggregate of 55% marks may apply along with the examination fees of Rs. 50.00

- **Merit/ Post-Matriculation Scholarship for SC/ST/OBC:** The college offers the following two scholarships to SC/ST/OBC students through the funds provided by the Directorate of Education, Government of Delhi:
  - I. Merit Scholarship:-This scholarship is awarded to all SC/ST/OBC students who secure more than 60% marks in aggregate in annual exams (provided that they apply)
  - II. Post- Matriculation Scholarship: This scholarship is awarded to all SC/ST/OBC students whose annualfamily income is below 1 lakh (provided that they apply)
- **Vice Chancellor's Student Fund:** This fund provides financial assistance to those students in college who come from economically weaker section.

**2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (student from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?**

- The cases of the students from disadvantaged sections of the society and from the economically weaker sections are sent to the fee concession committee
- The college grants fee concession to deserving students. Its continuance depends upon satisfactory academic progress, regular attendance and good conduct.
- Fee concession is granted to all students fulfilling the criteria formulated by the committee. The physically disabled students don't need to pay any charges other than the examination fee.
- Faculty reaches out to such students and helps them through personal counseling.

**Table 1: Fee Concession Details for last four years**

S. No.	Financial Year	No. of Students	Total Amount Disbursed
1.	2010-11	27	34,750/-
2.	2011-12	28	86,000/-
3.	2012-13	80	1,80,500/-
4.	2013-14	180	4,69,000/-

Other than concession in fees, if required, the college also sponsors **full fees** of extremely poor and meritorious students through funds generated by willing Faculty members.

- Tutorials and remedial classes are held for the slow learners to help them keep pace with the class.

## **2.3 TEACHING-LEARNING PROCESS**

### **2.3.1 How does the college plan and organize the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print, etc.)**

- Activities in the college, whether academic or extra-curricular, are planned strictly in accordance with the academic calendar laid down by the university.
- Each department sets its own teaching plans in the beginning of each semester and tests, assignments, projects etc. are carried out timely and accordingly.
- The college has an internal assessment software which enables teachers to upload the attendance record at the end of each month. Marks for various entries like house exam, assignments etc. are also uploaded well in time and the whole calculation is done via that software. Parents can see their wards' progress regularly by logging on to the college website.
- After each semester, the departments prepare their workloads for the next semester immediately so that the timetable is prepared well in advance and uploaded on the college website.

### **2.3.2 How does IQAC contribute to improve the teaching –learning process?**

- An IQAC (Internal Quality Assurance Cell) has been recently constituted which monitors quality through concerted efforts of its members and the management. IQAC is chaired by the Principal, and includes the Vice-Principal and 8 faculty members of the college.
- All the recommendations of the committee are implemented by the faculty.
- Before IQAC, the college had following committees to deal with similar issues:



I. The Academic Supervisory Committee

II. The Academic workload committee

III. The Timetable committee

- The academic workload committee calculates the workload of each department based on their requirements. The timetable committee prepares the timetable well in advance so that the teaching starts on time. The academic supervisory committee determines the workload, ensures the complete adherence to time table, analyses results and defines policies related to academics.
- The quality of administration, academics and infrastructure is strictly monitored and managed by the Staff Council through the Teachers-in-charge. The Departments hold regular meetings to monitor the syllabi covered and the overall attendance of students. Monthly attendance and internal assessment marks of students are displayed on the website. The students' results are discussed in meetings of individual departments with the Academic Supervisory Committee and Staff Council.
- Academic Committee and Academic Supervisory Committee: These committees monitor the academic issues related to teaching and evaluation.
- Development Committee monitors the upkeep and maintenance of the building and infrastructure.
- General Purchase Committee facilitates purchase of various items for the college. Student Advisory Committee and Discipline Committee maintain the overall discipline in the college. They also monitor and guide the activities of students and Students Union. The college also has anti ragging and the college complaint committee (against sexual harassment).

**2.3.3 How learning is made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students? The role of a teacher in a college is of a guide and mentor. Students at Shivaji College are always stimulated to develop independent decision-making.**

- Students are given important tasks to organize events in college.
- E-Learning is encouraged through extensive use of multimedia and

technology. The college library is well equipped with required infrastructure to motivate students for independent learning and research oriented activities.

- Academic and non-academic activities are organized for students to broaden student's knowledge base.
- Collaborative learning is encouraged through group presentation, group projects etc.

#### **2.3.4 How does the institution nurture critical thinking, creativity, cultural values and scientific temper among the students to transform them into life-long learners and innovators?**

- The topics given to the students for assignments and projects are chosen deliberately to promote creativity and critical thinking.
- All departments and committees inculcate numerous cultural values through events in which the students display creative skills enthusiastically.
- The Cultural Committee is one of the most prominent committees in the college. It involves students in activities of societies such as dramatics, music, fashion, dance etc.
- **VAYAM:** The Theatre Group, is not just a name, it is a spirit evolved over six years through consistent hard work, belief, innovation and creativity. Within a short span it has become one of the most renowned theatre groups in the university. The first production and the first professional performance of the team was "Toba Tek Singh" based on a short story by S.H. Manto. Subsequently, the production of "Bade Bhai Sahab" by Munshi Premchand, turned out to be the highest award winning play of Delhi University (54 wins). Moving away from the stereotypes, its motive has always been to produce street plays with a new shade of meaning through a fresh approach. In this context various other productions namely "Disha" – Voice of the youth (played at National Centre for Performing Arts – Mumbai), "Chowk Ka Deepak" – plight of the street children, "Bojh" – voice against female foeticide have triggered social issues.
- **Vibgyor:** The Fine Arts Society, is an excellent platform for the students with an artistic bent of mind to further explore their talents. Vibgyor participates actively in inter-college festivals of Delhi University and has won prizes in many colleges including Khalsa, Ramjas, CBS, JIMS etc.

- **Shutterbugs:** The Photography Society, has been very active since its inception. Shutterbugs organizes as well as participates in numerous competitions and exhibitions. It recently held a photo walk in Chandni Chowk, the exhibits of which were portrayed in the form of a movie “Chatori Dilli” in the college. The society has won prizes in several college festivals. Apart from photography, Shutterbugs is also active in filmmaking. A stupendous documentary named ‘PAGDI’ was made on the theme of honor killing, a very relevant topic in today’s scenario.
- **Footloose:** The Dance Society, Footloose encourages young budding dancers to discover their love, passion and potential for dancing. The tagline “Dream of Every Foot” aptly describes the society where the members follow their dreams to bring out the best in themselves. The society experienced success from the word “go” and with each passing year has touched new heights. Apart from learning how to dance and to be fit, one learns about teamwork and leadership qualities.
- **Reverb-** The music society of the college start with auditions held at the beginning of the new session. The society has added a new dimension by forming its own rock band. It takes great pride in the achievements of its members in various inter-college festivals.
- **Bizarre-**The Fashion Society, It is one of the most popular societies of the college that attracts wide participation from the students. Auditions for new members are held at the start of each session. The aim of the society is to act as a launch pad and to train the members to be prospective models. The shows organized by the society are choreographed by their own members. Last year they won many laurels for the college by participating in various inter-college festivals. Recently they participated in the annual festival of Lal Bahadur Shastri Institute of Management where they stood second and were awarded a cash prize of Rs. 45000/-.
- **Department Societies:** Every department has its own society which provides a competitive platform for a stimulated exchange of knowledge, skills and creative aptitude among students. The societies organize festivals and other academic events to encourage students to think beyond the curriculum. **Websters:** Computer-Science Society, **Oyster:** Zoological Society, **Sanskrit Parishad:** Sanskrit Society, **The Democrats:** Political Science Society, **Litopia:** English Literary Society, **Chaperone:** Biochemistry

society, **Shivalik:** Geographical Society, **Fragrance** :Botanical Society, **Infinity:** Mathematics Society, **Rastantram:** Chemistry Society, **Waves:** Physics Society, **Kaizen:** Commerce Society, **Epitome:** Economics Society, **Itihaas:** History Society, **Sahitya Sangam:** Hindi Society

- The college has always encouraged maximum participation from students in all fields whether academic or non-academic.
- **“Gyanodaya”** provides one good example to show the institution’s involvement in developing critical thinking and scientific temper among students. “Gyanodaya” is an initiative by the University of Delhi, under which a special train is arranged and the students along with a few teacher mentors take a trip to various places in India and make a survey of different aspects about that place. Our college has participated four times in “Gyanodaya” in the years 2012-13, 2013-14 and 2014-15.
  - I. The college participated in Gyanodaya II. A trip to Rajasthan (Bikaner, Jodhpur, Jaisalmer) with NCC cadets was organised in October 2012. They visited the India Pakistan border in Jaisalmer, Bikaner and Jodhpur.
  - II. Our students went on Gyanodaya III in September 2013 to Punjab and Wagah border and studied some important aspects like cultural heritage of these places.
  - III. Our students went for Gyanodaya IV and worked on the project titled “Research and Technology–Development and Implementation”. The places they visited were Kanpur, Varanasi, Bhopal, Ahmedabad and Surat.
  - IV. Gyanodaya V took the students to Sikkim and studied organic farming.

The students for Gyanodaya trip are selected from varied courses to encourage inter-disciplinary approach.

**2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? e.g. Virtual laboratories, e-learning - resources from National Programmes on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.**

- Projectors are installed in almost all classrooms and labs in the college and are effectively used by the faculty to deliver lectures.

- Laptops have already been provided to each department to facilitate e-teaching techniques.
- The college premises are Wi-Fi enabled and the students and teachers access internet facilities in the college. The college acquired its own licensed version of highly scientific software MATHEMATICA. Matlab software is also used whenever needed in the computer practical classes. Geography department has its own technical GIS softwares like Geomedia software (5 units) and a Mapinfo Software (10 units). The Department of Geography also uses open-source GIS software Q- GIS. The Department of Economics has acquired a statistical software STATA for econometric analysis.
- The college has four well equipped computer labs and all science departments have their own laboratories equipped with latest technology and facilities.
- The students and faculty have access to e-resources via INFLIBNET.

**2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?**

- Departments in the college organize national / international workshops or seminars to expose students to higher level of knowledge and research techniques. Experts from various fields are invited to deliver talks which are usually interdisciplinary in nature.
- Each committee organizes workshops, seminars, conferences, talks and group-discussions. Eminent scholars are invited to deliver talks in these conferences.
- On the **50<sup>th</sup> anniversary** of Shivaji college, a three-day international conference was organized in the conference centre of the university in which the theme was “Science, Spirituality and Humanity: Transcending Discipline Barriers” from 17<sup>th</sup> to 19<sup>th</sup> February 2011.
- **Women Development Cell** also organized its first international conference in the year 2012-13 on the topic “Empowerment of Women in the developing world”.
- In 2014, WDC Celebrated Womanhood by organizing a panel discussion to identify reasons both social and psychological, which

exist behind reluctant attitude and moral indifference towards the swelling number cases of sexual assault. The event was followed by presentation of **Jijabai Women's Achievers Award** and release of the Book "*Anujivami : I Survive*". The Women's Development Cell also organizes frequent panel discussion, workshops, and symposia on the subject of women's issues and developmental concerns.

- The **placement cell** organizes various workshops from time to time. A session on the "*Art of CV Writing*" was held in 2013. In the same year, *Psychometric Tests* were conducted in association with Jaipuria Institute and The *Graduate Employability Test* was conducted in the college in collaboration with NIIT. A *Pooled Campus Drive* by Markit was held in 2014. Students were also enrolled for a live project by Wechat in 2014. A seminar on "*Career Opportunities for Fresh Graduates*" was also held in Association with NIIT.
- Soft **Skills training for police constables** of western zone was organized in the college premises in 2012 and 2014.
- Details of national workshop/ training programmes/ sensitization programme held in the college are provided in Appendix 2.2.
- List of International/National conferences organized by the college is provided in Appendix 2.3.

**2.3.7 Detail (process and the number of students \benefitted) on the academic, personal and psycho-social Support and guidance services (professional counselling / mentoring / academic advise) provided to students?**

- During admissions, a committee of teachers is constituted to guide the prospective students regarding which course to opt for and which discipline to follow.
- The faculty constantly counsels and mentors the students regarding their academic and non-academic problems.
- Seminars and expert talks on the topics related to stress, career counselling and other social issues are organized in the college from time to time.
- The college appoints a professional lady counselor in each session to provide psycho- social support to the students.

**2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?**

- During the last few years, substantive changes have occurred and the conservative methods of teaching have been replaced with many new techniques.
- All teachers have adapted to the changing times by attending various upgradation workshops organized by the university and started using available E- Resources. In addition, the teachers have been through orientations, refresher courses, seminars and upgradation programmes. The course of ICT held by ILLL for college teachers was attended by many teachers.
- Faculty extensively uses laptops, projectors, visualizers, camera aided microscopes etc.
- Innovative methods of instruction like group presentations, group discussions, projects, field visits and excursions are also utilized to make students more job oriented.
- All the new software available in the college like Mathematica, Matlab etc. are used as means of instruction by the faculty.
- Every new technique and knowledge acquired by the teachers is passed on to the students. To learn new innovative techniques of teaching, faculty attends various refresher and orientation programmes, workshops and other staff training programmes conducted by the university and other institutions regularly.
- Theatre workshops, heritage walks, visit to biodiversity parks and research institutes are organized regularly.

**2.3.9 How are library resources used to augment the teaching-learning process?**

Shivaji college has a fully automated library with air conditioned reading hall for students and teachers.

- The Library has 86594 books with 2762 books added during the current session. There are 543 reference books.
- The library has a subscription of over 28 periodicals, popular magazines, encyclopedia and journals and 48 newspapers.

- Online public access catalogue (OPAC) is also provided to ensure easy access of books to the students.
- For the visually impaired students, Braille kits consisting of 286 Braille books with CDs are available in the library, along with 10 i-pods, and 29 recording devices.
- All the academic journals can be accessed and obtained online via the university networking system. Students use these resources and enhance their knowledge by spending quality time in the healthy environment of the library in the college.
- The college has procured INFLIBNET e-journal access and it is offered to all students and teachers.
- All students and teachers are provided separate login IDs to have access to the INFLIBNET e-journals within and outside the campus. INFLIBNET e-journal facility is available round the clock to 3000 e-journals and one lac e-books on various fields related to undergraduate and postgraduate courses.
- The library has installed the NETLIB software which includes facilities such as administration, acquisition of books, cataloguing, circulation, membership facilities, article indexing, serials, bar-coding and the importing of data.
- The college library is equipped with twenty five computers. There are five printers installed in it. The library is also in possession of two bar-code printers with readers and two receipt printers. The college has a band width of 30mbps provided by the University of Delhi.
- The college also has an additional internet bandwidth of 1 mbps from MTNL. The library has a collection of syllabi and past year university question papers offered by the University of Delhi to the undergraduate and postgraduate courses. The ordinance of the university, governance of colleges, Swaminathan's rule books pertaining to the various laws and policies of the government of India are also available.
- There are over 300 CDs of various books available in the library. 35 CDs are also available for the Foundation Courses for the undergraduate courses. The college has appointed one computer-



trained staff for the management of the entire e-learning system in the library. The Delhi University (Central Library System) e-resource online access provided by the Central Reference Library is also available to the students (Appendix 2.4 ).

**2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If ‘yes’, elaborate on the challenges encountered and the institutional approaches to overcome these.**

- The faculty takes utmost care to plan in advance and complete the prescribed syllabus in the given time frame. If at all any problem occurs in this regard, extra classes are held either in the semester break or otherwise.
- The Departments hold regular meetings to monitor the progress of coverage of syllabus.
- All the meetings are held after 1:30 pm. Any extra-curricular activity is planned in the afternoon or on Saturdays or in the semester break.
- The college timetable is prepared well in advance before the commencement of the session. The college has also acquired a software for preparing and viewing the timetable which is posted on the college website to make the system highly efficient and transparent. These steps ensure that classes are not disturbed.
- Adhoc / guest faculty is appointed in place of teachers going on long leaves. The institution makes all efforts to ensure that the curriculum is completed on time.

**2.3.11 How does the institute monitor and evaluate the quality of teaching learning?**

- Each Department analyses the results at the end of each semester. After that a meeting is held with the Principal to discuss the results.
- In the annual meeting of the Staff Council, an overall screening of the results in all streams is carried out and all aspects of success and failure are discussed.
- The administration also takes care that classes are held regularly in allotted time schedule.

## 2.4 TEACHER QUALITY

### 2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum

- Shivaji College initiated the process of permanent appointments to ensure that the best faculty is appointed in all departments. Permanent faculty has been appointed in the Departments of Mathematics, Botany, Sanskrit, English and Biochemistry and the screening in other departments is under process.
- The permanent posts are advertised in national newspapers and on the college and university website. Eligibility criteria for teachers are determined as per UGC norms and guidelines. The selection committee for the permanent and Ad-hoc appointments is formed as per the rules and regulations of the University of Delhi.
- Both the permanent and ad-hoc posts are created according to the roster system and requirements of the college.
- Best efforts are made to retain all well qualified and competent ad-hoc teachers and the college ensures that its faculty, whether permanent or ad-hoc, gets its due rights.

**Table 2: Details of the number of teachers in each department in the college:**

Highest Qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
<b>Permanent teachers</b>							
D. Sc	-	-	-	-	-	-	-
Ph. D	-	-	20	21	11	21	73
M. Phil	-	-	1	5	7	9	22
P. G	-	-	3	3	5	7	18
<b>Temporary teachers (Ad-hoc)</b>							
Ph. D	-	-	-	-	17	18	35
M. Phil	-	-	-	-	9	10	19
P. G	-	-	-	-	6	17	23
<b>Part-time teachers</b>							
Ph. D	-	-	-	-	-	-	-
M. Phil	-	-	-	-	-	-	-
P. G	-	-	-	-	-	-	-

**2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes / modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.**

- The college has well established departments of Biochemistry and Computer science. The self-financed course of BBE (Bachelor of Business Economics) has been running successfully in the college since 2006.
- The college appoints new ad-hoc/permanent teachers purely on merit basis and ensures that the specializations match with the requirements of the curriculum.
- It is ensured that the work load of the new programmes is shared by the new and senior faculty equally. The senior faculty puts in their experience and the new faculty brings new innovative methods while teaching the prescribed courses. IT, finance and Biotechnology are the three emerging areas which need both modern and classical ways of instruction.
- Teachers who are not accustomed to new subject areas are encouraged to attend refresher courses and related workshops to update themselves.
- At present, the college has faculty capable of teaching all the new and emerging areas.
- The feedback of students with respect to the teaching in the college is satisfactory.

**2.4.3 Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.**

- Teachers are constantly engaged in research activities. Many teachers avail study leave to pursue a Ph.D. / post doctoral research. Teachers attend workshops and seminars conducted by various academic institutions.
- Refresher/Orientation programmes held by the university are attended by all faculty members at different stages of their career.

Following table provides a list of such programmes attended by the faculty during the last 4 years:

**Table 3: Nomination to staff development programmes**

Academic Staff Development Programmes	Number of faculty nominated
Refresher courses	9
HRD programmes	-
Orientation programmes	10
Staff training conducted by the university	7
Staff training conducted by other institutions	3
Summer/winter schools, workshops etc.	33

**Table 4: List of faculty members who availed study leave for exchange programmes**

S. No.	Name of Faculty	Exchange Programmes
1	Dr. Darshan Malik	Erasmus Mundus External Cooperation Window, Academic staff Exchange, NTNU, Trondheim, Norway
2	Dr. Anuradha Mal	Erasmus Mundus External Cooperation Window, Academic staff Exchange, NTNU, Trondheim, Norway
3	Ms. Reetika Rana	University of Edinburgh, United Kingdom, 2011-12
4	Mr. Sumeet Singh Raheja	University of Nottingham, United Kingdom, 2011-12
5	Mr. Krishna Ram	University of Birmingham, United kingdom, 2011-12
6	Dr. Arunvir singh	Sherubtse College, Royal University of Bhutan, on Deputation (Feb, 2008 - Feb, 2010)
7	Dr. Jyoti Sharma	University of Lausanne, Switzerland, w.e.f. 10 Feb, 2015 for one semester of 2015-16

**Table 5: List of faculty members who availed study leave for Ph.D. or Post-Doctoral research**

Sr. No.	Faculty	Purpose of leave
<b>2013-2014</b>		
1	Dr. Shama Mitra Chenoy, Department of History	Post doctoral research
2	Ms. Anjali Raman, Department of English	Ph.D.
3	Ms. Mamta, Department of Physics	Ph.D.
4	Ms. Leisangthem Gitarani Devi, Department of	Ph.D.

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	English	
5	Ms. Raj Kumari, Department of Hindi	Ph.D.
<b>2012-2013</b>		
1	Ms. Raj Kumari, Department of Hindi	Ph.D.
2	Ms. Anjali Raman, Department of English	Ph.D.
3	Mr. Krishna Ram, Department of Economics	M.Sc in Economics University of Birmingham, UK
4	Mr. Sumit Singh Raheja, Department of Economics	MSc. Econometrics, University of Nottingham, UK
5	Ms. Reetika Rana, Department of Economics	MSc. In Financial Economics, University of Edinburgh, UK
6	Dr. Shama Mitra Chenoy, Department of History	Post-doctoral research
<b>2011-2012</b>		
1	Dr. Manju, Department of Botany	Department of Biological Sciences, University of Aarhus, Denmark, for post-doctoral research work.
<b>2010-2011</b>		
1	Mr. Pankaj Kumar Das, Department of Mathematics	<b>Ph.D</b>
2	Dr. Manju, Department of Botany	Department of Biological Sciences, University of Aarhus, Denmark, for post-doctoral research work.
3	Dr. Surbhi Madan, Department of Mathematics	<b>Ph.D</b>
4	Ms. Khurshid Khan, Department of	<b>Ph.D</b>

**B) Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning**

- Teaching learning methods/approaches
- Information and Communication Technology (ICT) Workshop organized for faculty members

- Handling new curriculum
- Content/knowledge management selection, development and use of enrichment materials
- Assessment
- Cross cutting issues
- Audio Visual Aids/multimedia
- OER's
- Teaching learning material development, selection and use
- The staff training programmes are usually conducted by the university and attended by the faculty.
- The college conducted a laboratory training programmes for lab assistants in 2014.
- In 2010-11, an ICT (Information Technology) workshop was held in the college for the faculty in which many teachers took part and learnt computer and internet techniques.

#### **Percentage of faculty**

- Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies – 3%.
- Participated in external Workshops / Seminars /Conferences recognized by national/ international professional bodies - 13%
- Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies – 10%

#### **2.4.4 What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)**

The college provides all possible support to the faculty for pursuing academic activities. Study leaves are granted in accordance to the university rules for research purposes and to obtain higher degrees. The college nominates faculty for academic staff development programmes and grants duty leave to attend orientation programmes, refresher courses, workshops, seminars, symposiums and conferences (Refer to Tables 3, 4, and 5). The teachers of the college are permitted to take up

academic and other assignments on deputation or as visiting faculty etc.

**2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.**

- Four teachers were awarded “**Best Teacher**” award by the University of Delhi and one teacher was conferred with the “**Rashtriya Gaurav**” award for outstanding service, achievements and contribution in the field of academics by the India International Friendship Society. Some of the Faculty members were awarded Young Scientist Award, Best Paper or Best Poster presentation Awards (Appendix 2.5).
- Some of the Innovation Projects were awarded under different categories by the University of Delhi. The List of awards given to innovation projects for the Best Display and Best Innovative Idea is given in Appendix 2.6.

**2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?**

Yes, the college introduced the mechanism of taking teachers' feedback by the students in 2014. A feedback form was distributed among the students through which they evaluated the teachers and the college. The feedback form contains questions related to

- Punctuality, communication skills, innovativeness, subject knowledge of the teachers.
- Facilities in the college regarding infrastructure, classrooms, common rooms etc. and environment for academic and extra-curricular activities in the college.
- The administrative staff (non-teaching) and its helpfulness, availability and resourcefulness.
- Other facilities in the college like medical help, sports ground and sports facilities, cleanliness, lawns, gardens, canteen, and wi-fi etc.
- Library facilities, its staff, books, seating area, and computerization.

- College and university examination system and related matters.
- Extra-curricular activities, committees, societies, and their events.

## **2.5 EVALUATION PROCESS AND REFORMS**

### **2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?**

- The rules and regulations concerning the evaluation process are displayed on the college website.
- Students are also informed about the distribution of marks on the departmental orientation day and during regular classes as well.
- The uploaded information can be accessed and verified by the student as well as by parents at any time. Any queries or discrepancies are resolved out to the full satisfaction of students and teachers.
- A moderation committee is set up in each department which holds its meeting in each semester and carefully analyses the internal assessment marks submitted by the teachers.
- The college also has an I.A. monitoring committee. Students can approach teachers and moderation committee members for any query and clarifications.

### **2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?**

Major reforms introduced in the evaluation process of the University of Delhi in 2011-12 and adopted by the college are as follows:

- An internal assessment method was introduced in which 25% of the total marks are awarded on the basis of house examination, attendance and assignments.
- The university follows centralized evaluation system and evaluation schedule is communicated to the colleges in advance.

In order to improve the performance of the students, the college follows the practice of multiple class tests, assignments, projects and presentations. The college takes care that the invigilation duties of teachers are assigned keeping in view their evaluation schedules.



**2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?**

- The institution ensures that all the evaluation reforms are followed as per schedule so that the results can be declared on time.
- The attendance and internal assessment marks are uploaded on the college website [www.shivajicollegeia.com](http://www.shivajicollegeia.com).
- A form provided by the university is to be filled by the teachers in each semester indicating which papers are currently taught by them so that their names occur in the evaluation schedules of these papers in the evaluation Centre. The centralized evaluation schedule is received by the college and the communicated to the teachers. The entire schedule is also displayed on the university website. Furthermore, it is mandatory for all the teaching faculty members to take part in the evaluation process.
- The departments hold regular meetings to ensure that the teachers take regular class tests, assignment, presentations etc. as a part of the initiative taken by the college for effective evaluation of the students.

**2.5.4 Provide details on the formative and summative assessment approach adopted to measure student achievement. Cite a few examples which have positively impacted the system.**

25% of the total marks are allotted for internal assessment in the current evaluation system. For a 100 marks paper, 25 marks of IA are distributed as follows: 10 marks for house exam or test held in class + 10 marks for assignment (project, presentations) + 5 marks for attendance. A minimum of 67% attendance is compulsory for students to appear in exams. The efforts put in by the students for preparing projects on the topics assigned to them also help them to develop various skills. Final examinations are conducted by the university and evaluated centrally.

**2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.**

The entire internal assessment process is highly transparent as all the

marks are uploaded timely on the internal assessment section of the college website and students can see their marks and discuss the anomalies (if any) with their teachers. Students are also made to sign on their internal assessment copies so as to ensure that each one of them has gone through their marks thoroughly. The group discussion element takes care of the communication skills and the projects display their creativity.

**2.5.6 What are the graduate attributes specified by the college/affiliating university? How does the college ensure the attainment of these by the students?**

Students attain all the graduate attributes by being a part of academic as well as extra-curricular activities held in the college. Classes, tutorials, assessments, presentations, projects, workshops and talks contribute to the academic part and cultural activities, department functions, college festivals, committees and their activities contribute to the creative part of students' development. Moreover, various motivational talks are also conducted by the college for students to ensure an all-round and holistic development in students' personality.

**2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?**

- At the university level, if a student is not satisfied with his/her marks, he/she can apply for revaluation of his/her answer scripts.
- At the college level, assignment/class test scripts are returned to the students after the evaluation and grievances if any, are resolved.
- The internal assessment marks are uploaded on the college IA website and students also sign on their IA mark sheet to ensure parity.
- Any anomalies are resolved out to the students' satisfaction by the teachers.
- Marks are moderated both by the Department committee and the College Internal Assessment monitoring committee.
- Marks are scrutinized at many levels in the college before the report is sent to the University.

## **2.6 STUDENT PERFORMANCE AND LEARNING OUTCOMES**

### **2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?**

- The College follows exam based system and the whole process is available on the university website and the college website.
- Notices for students and staff are put in advance to make them aware of the system.
- The college has a placement cell which helps students to get good placements immediately after their graduation. Some good companies come and pick up final year students for jobs.
- On the orientation day of the college, each department conducts its separate meeting (orientation) with the new students in which students is clearly explained how the whole evaluation process works throughout their studies.
- Students get regular reminders and updates from the faculty regarding evaluation schedules, tests, assignments, presentations, distribution of marks etc.
- University sends regular notices to the colleges either via e-mails or hard copies regarding evaluation systems and schedules.
- The college has also appointed student counselors who help the students plan their course and studies as and when required.

### **2.6.2 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programmes? Provide an analysis of the students' results/achievements (Programmes/course wise for last four years) and explain the differences if any, and patterns of achievement across the programmes/courses offered.**

- The progress and performance of the students is monitored via tests, oral tests, projects, presentations, day to day classroom interaction, tutorials and revision sessions. The results and internal assessment marks are discussed in departmental meetings and are then forwarded to the principal and staff council for further analysis.
- The teachers get the internal assessment marks cross-checked by the students to avoid any discrepancy. In case there is any, it is resolved out before the marks are sent to the university.

- The students attaining attendance less than a certain percentage are supposed to sign an undertaking to make sure that they overcome their attendance shortage in the successive semester.
- Necessary amendments in the teaching and learning process are made in consultation with the Principal after analyzing results at all the levels (Appendices 2.7-2.11).

It is to be observed here that the intake quality of students differs from institution to institution. The cut off percentage in our college might be somewhat lower/higher than other colleges in Delhi University. But the faculty makes all efforts to ensure that the students leave the institution after three years in a better position (both academically and non-academically). There are specific examples of students in many courses where they entered the college with an average performance, but scored remarkably well.

### **2.6.3 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcome.**

- The teaching, learning and assessment schedules of the university are followed strictly by the college. All the previously mentioned methods of teaching are practiced and the outcome is in the form of results and other achievements of students.
- The work load of each department is calculated, approved by the concerned authorities and then distributed well in advance so that teaching begins as soon as the semester begins.
- Timetables are made before the semester begins and are distributed well in advance. The College has acquired its own timetable software which makes it convenient and transparent for the faculty members and students to view the timetable. The timetables are also displayed outside each classroom which makes the whole system highly transparent and effective.
- Ad-hoc teachers are appointed in place of teachers on leave or in case of extra workload to ensure that teaching is not affected.
- Regular meetings are held to ensure that anything lacking in the system or infrastructural requirements is fulfilled at the earliest for smooth running of the institution.

**2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?**

- Shivaji College has an active placement cell through which various companies come for campus placements. Outstanding students get a chance to gain employment immediately after graduation. Placement cell also organizes career counseling sessions for students to guide them.
- Students are encouraged to attend various in-house and external workshops to gain knowledge regarding higher studying techniques. Industrial visits are also carried out for giving them an exposure to entrepreneurship. Presently, Shivaji College has 9 innovation projects with strength of 10 students per project. Students thus get a chance to learn about innovative research methodologies.
- The NCC, NSS, WDC, Eco Club, Clean campus committee, Cultural committee and all the sub societies provide a wonderful atmosphere for the students to work and take part in numerous activities held in the college regularly.
- Students display writing and editing skills through the college magazine. Magazine has a student editorial board which gives students an opportunity to gain experience in writing and editing. Refer to the 2.3.4 for further details on societies.
- The committee not only coordinates placements but also conducts seminars that make students more employment oriented. Student placement coordinators are appointed from the third year of each discipline to be a part of the placement committee.
- The committee coordinated placement sessions of Companies like TCS, IBM, GENPACT, Protivity, AON Hewitt, E Meditek, HCL, Global Optics, EON Electric and Capital IQ. Apart from these our students also got internships and placements in RBS, Axis Bank, American Express, and Mansukh Securities.
- The college has an efficient Placement and Corporate Relations Committee named “Esperanza”. It conducts seminars and talks on various topics like “The art of writing resumes”, “Careers opportunities in Finance Sector” every year.

- Motivational talks on the topics “Positive and Positive is the only key to success” & “Role of the Youth in Building a Nation” were delivered by distinguished speakers.

**2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?**

- Major reforms were introduced in the evaluation process of the University of Delhi with the onset of the semester system in the year 2011-12.
- An internal assessment method was introduced in which 25% of the total marks are given in the form of house exam, attendance and assignments. The college has followed this system since then and an internal assessment website was set in place for Shivaji College in which teachers upload their marks after the final calculations are done.
- The progress and performance of the students is monitored via tests, oral tests, projects, presentations, day to day classroom interaction, tutorials and revision sessions. The results and internal assessment marks are discussed in departmental meetings and then are forwarded to the principal and staff council for further analysis. Any discrepancy is resolved before the marks are sent to the university.
- The students with deficit attendance are supposed to sign an undertaking to make sure that they overcome the attendance shortage in the coming semester. After careful analysis of the results at all levels, necessary amendments in the interactive process are made in consultation with the Principal.
- The students found lagging behind are given additional attention in the form of remedial/ extra classes and different teaching strategies/ methods.

**2.6.6 How does the institution monitor and ensure the achievement of learning outcomes?**

- The learning and assessment schedules of the university are followed strictly by the college.
- The work load of each department is calculated, approved by the concerned authorities and then distributed well in advance so that the teaching begins on the very first day of each semester.

- Timetables are made before the semester begins and distributed well in advance.
- Ad-hoc teachers are appointed in place of teachers on leave or on extra workload to ensure that teaching is not affected.
- Regular Department and Staff Council meetings are held to ensure that anything lacking in the system or infrastructural requirements is fulfilled at the earliest for smooth running of the institution.

**2.6.7 Does the institution and individual teachers use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.**

Assessment and evaluation outcomes constitute a major part of the student's performance. The institution and the individual teachers understand that marks are not the only basis on which students can be judged or analyzed. Every individual has some qualities which may or may not be indicated by his/her mark sheet. Yes, evaluation outcomes do help in future planning for the institution but the overall development and growth of students during his/her graduation is what matters in the long run of student's career.

The evaluation indicates to the teacher to what extent he/she has been able to impart the desired knowledge to the students. Hence, every step of evaluation becomes an input for deciding his/her teaching strategy. The college believes in dynamic teaching-learning process to make the students active learners.

## **CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION**

### **3.1 PROMOTION OF RESEARCH**

#### **3.1.1 Does the institution have recognized research center/s of the affiliating University or any other agency/organization?**

The college has well-equipped laboratories for its individual departments. Though these are not recognized research centres, they do carry out significant research activity.

#### **3.1.2 Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.**

The college proposes to have a **College Research Cell (CRC)** in order to encourage and support faculty members to pursue research projects. The Principal, Vice-Principal and other senior faculty members from various departments would constitute this committee. Currently the Principal Investigators of projects monitor and address the issues related to research.

#### **3.1.3 What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?**

The college encourages the teachers to take up research projects and pursue them alongside their daily teaching routine. Once a project is sanctioned by the funding agency, the principal investigator exercises complete autonomy over it. The college ensures the availability or release of resources along with timely auditing and submission of utilization certificates to the funding authorities. The institute facilitates the quick procurement of research equipment and chemicals, and funds are released in advance for sanctioned projects, as and when required. The members of faculty involved in research also undergo advanced training which helps in capacity-building. The college provides support in terms of technology and information needs through a well-stocked library and a Wi-Fi enabled campus. Separate bank accounts are allocated for research projects to ensure that the funds provided by the funding agency are speedily transferred and put to use at the earliest.

#### **3.1.4 What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?**

The college organizes lectures, seminars, conferences and symposia for



interaction with eminent scientists and scholars. Workshops, field-trips and visits to institutions of higher learning are also organized on a regular basis to provide students with in-depth knowledge, allowing them the opportunity to learn through observation. The college promotes interdisciplinary research by encouraging and motivating faculty and students from different disciplines to carry out various research activities.

Nine interdisciplinary Innovation Research Projects supported by the University of Delhi, were awarded to **ninety students and thirty three faculty members** of the college in the academic session 2013-14. **This is the second highest number of projects granted to any college affiliated to University of Delhi.**

The college organizes several outreach and training programmes to promote a scientific temper among students. Few of the activities organized by the college are as follows:

- **171 eminent speakers** of national and international repute were invited to deliver lectures.
- Our college was part of four out of the five expeditions of the **Gyanodaya-College on Wheels** initiative of the University of Delhi.
- The Eco-Club of the college **e-Saviours** is run in co-ordination with the Department of Environment, Govt. of Delhi. It organizes annual educational tours to Botanical gardens and National Parks to create awareness among students regarding the environment.
- The students of the Geography Department visited **Sardar Sarovar, Maheshwar dam, Mandovi river, Karwar Naval Port, Sindhu Durg** and **Mandu Bhil** tribal areas, all facing rehabilitation problems.

The number of Departmental Study tours organized in the college are as follows:

S. No.	Department	No. of Tours	S. No.	Department	No. of Tours
1.	Biochemistry	2	7.	Geography	6
2.	Botany	5	8.	Hindi	5
3.	Business Economics	4	9.	History	5
4.	Commerce	1	10	Physics	1
5.	Economics	1	11.	Zoology	3
6.	English	3			

The number of students that have actively participated in various summer-training programmes are as follows:

- Nineteen students from the Department of Biochemistry
- Fourteen students from the Department of Botany
- One student from the Department of Physics
- Ten students from the Department of Computer Science
- Three students from the Innovation Project SHC-201
- Twenty nine students from the Innovation Project SHC-203

**3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity, etc.)**

- Nine faculty members are supervising sixteen Ph.D. scholars
- One faculty member is supervising a M. Phil. scholar
- Thirty three faculty members are guiding ninety undergraduate students in Innovation Projects
- One faculty member is involved in a UGC project
- Four faculty members are involved in four miscellaneous research projects

The faculty members involved in various ongoing research projects are listed below:

Dr. Shashi Nijhawan	Dr. Kiran Bamel	Ms. Abha Vasal
Dr. Anita Kapoor	Dr. Rashmi Wardhan	Ms. Iti Tripathi
Dr. Darshan Malik	Dr. DeepikaYadav	Dr. Amarjiva Lochan
Dr. Neena R. Wadehra	Dr. Unnati Gulaty	Dr. Virender Bhardwaj
Dr. Deepika Bhaskar	Dr. Sanjeev Kumar	Ms. Reetika Rana
Dr. Vanshika Lumb	Dr. Surbhi Madan,	Dr. Shiv Sahdev
Dr. Smriti Babbar	Mr. Pankaj Kumar Das	Dr. Smita Tripathi
Dr. Rahul Singhal	Ms. Nishtha Srivastava	Dr. Jyoti Sharma
Dr S.K Yadav	Dr. Rajni Kanojia	Bishnu Satapathy
Dr. Sumit	Dr. Devender Singh	Dr. Anil Aggarwal
Dr. Sunita Singh	Ms. Bharti Badhwar	Dr. Arunvir Singh
Ms. Jayita Thakur	Dr. Debjani Banerjee	Dr. Mridula Budhiraja
Dr. Tejbir Singh Rana	Dr. Ruchira Dhingra	Dr. Kumari Priyanka
Dr. Geeta Sharma	Dr. Lalita Rana	Dr. V.P.S Malik

Three faculty members, Dr. Amarjiva Lochan, Dr. Lalita Rana and Mrs. Neena Malhotra, have completed **five** miscellaneous projects.

**3.1.6 Give details of workshops/ training programmes/ sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbining research culture among the staff and students.**

**Details of workshop/training programmes/sensitization programmes:**

Departments	Title of the workshop/training programme & sensitization Programme	Date	Funding Agency
Department of Botany	"Ankuran" Workshop -The development of Herbal / medicinal garden	January, 2015	Ministry of Ayush
Department of Mathematics	Indian Science Academics Workshop: "Theory of Equations"	October, 2014	Indian Academy of Science, Bangalore, Indian National Science Academy, New Delhi and National Academy of Sciences, Allahabad
Department of Computer Science	True Hacking Workshop	October, 2014	Shivaji College, University of Delhi
Department of Economics	Workshop on Statistical Softwares : SPSS & STATA	September, 2014	Shivaji College, University of Delhi
Department of Botany, Biochemistry, Chemistry, Zoology	Lab skill training program for Laboratory assistant /attendants of Chemical and Life Sciences	July, 2014	Shivaji College, University of Delhi
Department of History	Two-day National Seminar "Recent Historiographical Trends: Whose Account is it Anyway?"	February, 2014	Shivaji College, University of Delhi
Department of History	Two-day National Seminar "Are Agendas Driving History Writing? Is the Discipline Becoming Richer or Poorer?"	February, 2013	Shivaji College, University of Delhi
Department of English	One-day National Seminar "The Line That Divides: Understanding Partition From	January, 2013	Shivaji College, University of Delhi

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	Women And/In Partition Narratives”		
Department of History	One-day National Seminar on “Celebrating Delhi” through the ages	September, 2011	Shivai College, University of Delhi
Department of Biochemistry	National Workshop on “RNAomics: Isolation to Interference”	October, 2010	ICMR, DBT, CSIR, UGC, DST, NPL, Andhra Bank, Medox, Roche, Vishal Jewellers
Department of Commerce	One-day National Seminar on “Business & Economics”	February, 2011	Shivaji College, University of Delhi
Department of Botany	National Symposium on “Frontiers and Avenues in Plant Sciences”	January, 2011	DBT, DST, CSIR, ICMR

**Sensitization Programs:**

- The WDC organised an international conference on **Women Empowerment** in the developing world to highlight the problems faced by them.
- The college launched a one-day National Campaign “**Yamuna Awareness: A Shivaji College Initiative**” in collaboration with GGSIP University.
- Two five-day **Soft Skill Workshops** for Delhi Police staff were conducted where the college took up the initiative of soft skill training for police personnel.
- The students associated with **Peace People Society** undertook several visits to **Sudinalay- A Shelter Home for women in distress**.
- The WDC of the college, through the **Jijabai awards** felicitates women who have been involved in bringing a change and becoming a source of inspiration for others.
- The members of Innovation Project SHC-204 are actively involved in **water harvesting in Nagaur District** for better conservation and use of rainwater.

**Approximately 60 academic events were organized by various departments of the college.**

**3.1.7 Provide details of prioritized research areas and the expertise available with the institution.**

The details of research expertise of various departments are as follows:

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<b>Department</b>	<b>Area of expertise</b>
B.B.E	Finance, Accounts, Statistics, Econometrics
Biochemistry	Molecular Biology, Genetics, Bioenergetics, Cell Biology, Virology, Immunology, Biophysics, Enzymology and Physiology
Botany	Reproductive Biology, Cell & Molecular Biology, Plant Diversity, Ecology, Plant Physiology and Biochemistry, Plant Biotechnology, Genetics, Environmental Studies, Bioinformatics, Fungi and Plant Pathology
Chemistry	Synthetic Organic Chemistry, Electro-organic Chemistry, Electrochemistry, Inorganic Chemistry, Physical Chemistry
Commerce	Human Resource Management, Finance, Accounting, Marketing, Corporate Governance & CSR, Business Economics
Computer Science	Information Security, Image Processing, Data Structures, Algorithms, Computer Networks, Databases, Requirements Engineering
Economics	Statistics, Macro Economics, International Economics, Public Economics, Monetary Economics, Econometrics, Development Economics, Environmental Economics
English	Architecture & Victorian Writings, Irish Drama, Shakespeare, Indian English Fiction & Poetry, Indian Classical Literature, British Romanticism, Comparative Literature, Literary Theory
Geography	Geomorphology, Urban, Agricultural, Environmental, Settlement, Gender and Population Geography, Environment & Development Crisis, Sustainable Regional Development
Hindi	Madhyakalin Ram Bhakti, Katha Sahitya, Natak aur Rangmanch, Media evam Patrikarita, Kavita, Alochna, Hindi Bhasha evam Bhasha Vigyan, Bhartiya Kavya Shastra
History	Ancient, Medieval and Modern Indian History, Gender Studies, Tourism, Human Rights, Environmental Studies and European History
Mathematics	Differential Equation, Automatation Theory, Algebra, Fuzzy Algebra, Analysis, Graph Theory, Coding Theory, Dynamical Systems, Operator Theory, Operator Spaces and Functional Analysis
Physics	Nanomagnetism, Quantum Field Theory, Material Science
Physical Education	Athletics, Table Tennis (Coaches are also hired for various sports)
Political Science	Indian Governance & Politics, Chinese Studies, Public Administration, International Relations, Indian & Western Political Thought
Sanskrit	Paleography of Brahmi Script, Veda
Sociology	Family and Kinship
Zoology	Environmental Biology, Fresh Water Biology/Rotifers, Reproductive Physiology, Toxicology, Molecular Biology, Immunology, Cytogenetics

**3.1.8 Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?**

The college invited more than 170 scholars of eminence from India and abroad to interact with faculty and students of different departments by organizing international/national conferences, seminars and special lectures. Workshops for capacity-building were organized to enhance interaction and learning. The mentors associated with the innovation projects [who are eminent scientists/scholars in their respective fields] are invited to the college to interact with the students and faculty, for which they are paid an honorarium

**3.1.9 What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?**

The college encourages the faculty to utilize the option of study/duty leave for academic exchange programmes and for pursuing higher specialization degrees like Ph.D., Postdoctoral studies, writing books and other academic work. The college provides leave as per UGC guidelines. Over the last four years, **twenty four** faculty members have availed of study leave for training/exchange/Ph.D./Postdoctoral studies.

**3.1.10 Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (laboratory to land).**

The college strives to promote a healthy research culture by organizing seminars, encouraging students to participate in various workshops and engage in active research. The faculty and students are encouraged to extend the findings of their research beyond the classroom. They regularly participate in programs related to health and hygiene, gender related issues and the spread of environmental awareness. Some of the attempts of the college towards this purpose are given below:

- The Eco-club of the college conducted a workshop “**Ankuran**” for the faculty and students of Delhi University to disseminate knowledge of the advantages of using medicinal plants in daily life.
- The college launched a one-day National Campaign “**Yamuna Awareness: A Shivaji College Initiative**” in collaboration with

GGSSIP University. The research group of SHC-203 investigated various parameters of the Yamuna River as part of their study and informed the community about the toxicity of water.

- The members of Innovation Project SHC-203 are in the process of developing a **Microbial fuel cell** which would be beneficial as an alternate source of energy.
- The members of Innovation Project SHC-204 are involved in **water-harvesting** in the Nagaur District (Rajasthan) for better conservation and use of rainwater.
- The members of the Innovation Project SHC-205 are involved in analyzing the **quality of milk** available in the locality and they are in the process of developing kits for checking it's quality.
- The members of Innovation Project SHC-206 are actively involved in finding **real time traffic solutions**.
- The students of the Geography Department visited certain areas such as **Sardar Sarovar Maheshwar dam** and other areas surrounding **Mandovi River**, facing rehabilitation problems.
- The members of the Innovation Project SHC 207 are involved in addressing the problems concerning women and their household work, which ironically has never been considered as formal work.

### **3.2 RESOURCE MOBILIZATION FOR RESEARCH**

#### **3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization**

Shivaji College is a constituent college of the University of Delhi and is 95% funded by the UGC and the remaining 5% by Delhi government. There is no separate provision for research in the budget in the grants received from the UGC. However the college encourages its faculty to submit research proposals to various funding agencies and the college is responsible for the mobilization of funds granted by them.

Student projects are supported by University of Delhi under the Innovation Projects Scheme

**3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?**

There is no provision in the institution to provide seed money to the faculty for research.

**3.2.3 What are the financial provisions made available to support student research projects by students?**

The college has secured nine Innovation Projects in the academic year 2013-14 and one in 2012-13. The total amount of money sanctioned to the college for the ten Innovation Projects is Rs. 43 lacs, Rs. 10.88 lacs for the UGC project and Rs.1.5 lacs for one ICSSR Project.

**3.2.4 How does the various departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organizing interdisciplinary research.**

Interdisciplinary events provide students with an opportunity to explore new horizons and interact with fellow students from other disciplines.

- The college has obtained grant for ten interdisciplinary **Innovation Research Projects** funded by the University of Delhi. Each project involves the participation of students and faculty from different disciplines (consisting of 10 students and 3 to 4 teachers) to enhance the interdisciplinary research interaction.
- **Gyanodaya-College on Wheels** is an initiative of the University of Delhi to broaden the horizons of students and our college participated in **four** out of its five expeditions.

Various challenges that have been faced by the college while undertaking such interdisciplinary projects include:

- Constraints of space and infrastructure
- Shortage of time along with teaching

**3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?**

- The college supports research by maintaining the equipment, software, books, journals and it provides space for setting up laboratories with latest technology.



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- All science departments are equipped with advanced instruments which are utilized by both students and faculty members.
- The college has four computer laboratories with 175 computers which are equipped with latest databases and softwares.
- The Geography laboratory is also well-equipped with advanced GIS mapping softwares, Geomedia and Mapinfo.
- Many research activities are carried out using the advanced instruments available in the parent Departments at the University or at other institutes.
- Wi-Fi facility is available in the campus for students and faculty. The library is well-stocked with research journals. The college has the INFLIBNET facility which allows both faculty and students to access online journals.
- The college library has a large collection of books and reference material.

**3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If ‘yes’ give details.**

**Details of projects and funding received from industry & beneficiary agencies:**

PROJECT/ EVENT	AMOUNT (IN RUPEES)	FUNDING AGENCY	YEAR
<b>FOR PROJECTS:</b>			
Development of Herbal Garden	2,00,000	Ministry of Ayush	2014
Innovation Projects	43,00,000	University of Delhi	2013-2014
UGC Project	10,88,300	University Grants Commission	2013-2016
<b>FOR ORGANIZING EVENTS:</b>			
National Symposium on “Cell: A Molecular Approach”	35,000	University Grants Commission	2010-2011
National Workshop on RNAomics	50,000	Department of Biotechnology, Govt. of India	2010-2011
	25,000	Indian Council of Medical Research	
	10,000	Vishal Gold & Precious Stones Pvt. Ltd.	
	1,00,000	Indian Oil Corporation	
	50,000	Indian Council of Medical	

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		Research	
	50,000	Department of Science & Technology	
	50,000	National Physical Laboratory	
	5,000	Andhra Bank	
	3,35,000	Medox, Roche	
Seminar on "Frontiers & Avenues in Plant Science" by Botany Department	25,000	Indian Council of Medical Research	2010-2011
	70,000	Council of Scientific & Industrial Research	
	75,000	Ministry of Science & Technology	
	50,000	Department of Biotechnology	
International Conference on "Science, Spirituality and Humanity: Transcending Discipline Barriers" held at University of Delhi	2,00,000	National Institute of Disaster Management	2010-2011
	50,000	Central Bank of India	
	1,00,000	Ministry of Science & Technology	
	1,00,000	Ministry of Earth Science	
	2,00,000	University Grants Commission	
Department Function, History Department	98,000	Cummins India Ltd.	2010-2011
	25,000	Central Bank Of India	
Eco-Club	10,000	Directorate of Higher Education	2010-2011
National Seminar by Biochemistry Department	75,000	Department of Biotechnology	2011-2012
Departmental Function, History Department	45,000	Indian Council of Historical Research	2011-2012
	1,12,500	Undergraduate Grants Commission	
	30,000	Bhasin Honda	
Eco-club	10,000	Directorate of Higher Education	2011-2012
Departmental function, English Department	45,000	Indian Council of Historical Research	2012-2013
National Seminar, History Department	1,35,000	Indian Council of Historical Research	2012-2013
1st WDC Conference on "Empowerment Of Women In The Developing World"	1,35,000	National Institute of Disaster Management	2012-2013
Eco Club	20,000	Directorate of Higher Education	2012-2013
Antardhwani prize money	1,00,000	University of Delhi	2013-2014
Eco Club	20,000	Directorate of Higher Education	2013-2014
Function, Computer Science Department	15,000	Zeta byte Computers, Pvt. Ltd.	2014
Departmental function, History Department	80,000	Indian Council of Historical Research	2013-2014
	25,000	New India Express	
	50,000	Fortune Public Relations Pvt. Ltd	
	30,000	Nirula Developers	
	50,000	KTG Hotels & Resorts Pvt. Ltd.	
	98,000	Aggarwal Packers & Movers	

**3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years.**

Faculty members are supported in all possible ways to secure research funds from various funding agencies. They are provided with timely information about projects and duty/study leave is sanctioned for the same. There are **nine ongoing innovation projects, one UGC project and five completed projects.**

S. No.	Project Title	Teachers Name	Funding Agency along with Grants	Departments from which students are involved
<b>ONGOING PROJECTS</b>				
1.	Drug design through molecular modeling for selected drug targets in Plasmodium falciparum to combat drug resistance against malaria [SHC-201].	Dr. Neena R. Wadehra, Associate Professor (PI) Dr. Deepika Bhaskar, Associate Professor Dr. Vanshika Lumb, Assistant Professor Dr. Smriti Babbar Assistant Professor	University of Delhi Rs. 7,00,000/-	Department of Biochemistry & Department of Computer Science
2.	Development of an Android application for the real monitoring of toxic environmental pollutant [SHC-202].	Dr. Rahul Singhal, Assistant Professor (PI) Dr S.K Yadav, Associate Professor Dr. Sumit, Assistant Professor	University of Delhi Rs. 5,00,000/-	Department of Chemistry & Department of Physics
3.	Biochemical assessment of toxic heavy metals in bacterial strain growing in the polluted water: A step towards Bioremediation [SHC 203].	Dr. Shashi Nijhawan, Principal (PI) Dr. Darshan Malik, Associate Professor Dr. Anita Kapoor, Associate Professor Dr. Sunita Singh, Assistant Professor Ms. Jayita Thakur, Assistant Professor	University of Delhi Rs. 5,00,000/-	Department of Biochemistry, Department of Botany & Department of Computer Science
4.	Water Harvesting Techniques in Nagaur District [SHC 204].	Dr. Tejbir Singh Rana, Associate Professor (PI) Dr. Geeta Sharma, Associate Professor Dr. Kiran Bamel, Assistant Professor	University of Delhi Rs. 3,00,000/-	Department of Geography & Department of Botany

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5.	Milk Adulteration and its Effects on Young Population [SHC 205].	Dr. Rashmi Wardhan, Associate Professor (PI) Dr. Deepika Yadav, Assistant Professor, Dr. Unnati Gulaty, Assistant Professor Dr. Sanjeev Kumar, Assistant Professor	University of Delhi Rs. 4,50,000/-	Department of Bio-Chemistry, Department of Zoology & Department of Botany
6.	Real Time Traffic Solution [SHC – 206]	Dr. Surbhi Madan, Associate Professor (PI) Dr. Pankaj Kumar Das, Assistant Professor Ms. Abha Vasal, Assistant Professor	University of Delhi Rs. 3,00,000/-	Department of Mathematics & Department of Computer Science
7.	"Doing Nothing"- The Invisible Work of Women [SHC 207].	Dr. Preeti Tewari, Associate Professor (PI) Dr. Jyoti Sharma, Associate Professor Ms. Nishtha Srivastava, Assistant Professor	University of Delhi Rs. 3,00,000/-	Department of Geography, Department Of Hindi & Department of History
8.	Experimental Investigations on Ion-Conducting Polymeric Gel Electrolytes Suitable for Applications in Electrochemical Devices [SHC-208].	Dr. Rajni Kanojia, Assistant Professor (PI) Dr. Devender Singh, Associate Professor, Ms. Bharti Badhwar, Assistant Professor, Dr. Debjani Banerjee, Assistant Professor	University of Delhi Rs. 5,50,000/-	Department of Chemistry & Department of Physics
9.	Women's Participation In Politics and Society In Post Globalization Era: A Comparative Case Study of Three Districts; Rohtak (Haryana), Amritsar (Punjab) And Sri Ganga Nagar (Rajasthan) [SHC - 209]	Dr. V.P.S Malik, Associate Professor (PI) Bishnu Satapathy, Assistant Professor Dr. Anil Aggarwal, Associate Professor Dr. Ruchira Dhingra, Associate Professor	University of Delhi Rs. 2,00,000/-	Department of Political Science, Department of Chemistry & Department of Hindi
10	Search of Good Rotation Patterns on Successive Occasions and its Applications	Dr. Kumari Priyanka, Assistant Professor (PI)	University Grants Commission Rs. 10,88,300/-	Department of Mathematics

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<b>MISCELLANEOUS PROJECTS (ONGOING):</b>				
1	Does a crosstalk exist between strigolactones (a new emerging plant growth regulator) and nitric oxide in eliciting auxin-induced adventitious rooting?	Dr. Smitha Tripathi, Assistant Professor	Science & Engineering Research Board, Govt. of India, India.	Received by Principal Investigator (PI) equivalent to Rs. 19,48,500/-
2	Epg –Pathshala (Content Writing – Public Economics)	Ms. Iti Tripathi, Assistant Professor	University Grants Commission	NA
3	Epg –Pathshala (Content Writing – Economics of Social Sector and Environment)	Ms. Reetika Rana, Assistant Professor	University Grants Commission	NA
<b>COMPLETED PROJECTS</b>				
1	Rice Culture: Rites and Rituals in India and Thai Societies (Monograph)	Dr. Amarjeev Lochan, Associate Professor	ASIA scheme of Ford Foundation, Bangkok	Received by Principal Investigator (PI) equivalent to Rs. 10,00,000
2	Indians in Thailand: The Dynamics Moving Thai Society in ASEAN and ASIA (Report)	Dr. Amarjeev Lochan, Associate Professor	Mahidol University Research Fund, Bangkok	Received by PI equivalent to Rs. 8,00,000
2	The Role of Hinduism, Sikhism and Jainism in strength building Indian Thai Families, Society and Culture in Thailand (second part undergoing)	Dr. Amarjeev Lochan, Associate Professor	Mahidol University Research Fund, Bangkok	Received by PI equivalent to Rs. 8,00,000
4	Ancient Tradition in Geography – The Western and Oriental Perspective	Dr. Lalita Rana, Associate Professor	Indian Council of Social Science Research	Rs. 1,48,994/-
5	University Social Networking Site for DU community	Mrs. Neena Malhotra, Associate Professor (PI)	Delhi University, Innovation Project Scheme	Rs. 5,00,000

### **3.3 RESEARCH FACILITIES**

#### **3.3.1 What are the research facilities available to the students and research scholars within the campus?**

- Fourteen well equipped science laboratories, including one for Geography, with the latest instruments and technology
- Four Computer Science laboratories with the latest software
- Wi-Fi enabled campus and MMP classrooms
- Computers and laptops for all departments
- A well stocked central library with **OPAC** system for the efficient cataloging of books
- Subscription to e-journals through INFLIBNET
- A spacious auditorium with a seating capacity of 350

#### **3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?**

The college seeks recommendations from various departments concerning the requirements for infrastructure for research. It does this by initiating meetings with various heads of departments and faculty members. The college ensures that it promotes research and streamlines the process whereby research equipment, software, books, journals and laboratory-development, based on the project requirements, can be easily made available. In the last four years, the college has purchased many advanced instruments such as PCR thermocycler, Gel documentation unit, Fibre optics kit, Michelson interferometer, Fresnel biprism and refrigerated centrifuges to upgrade the research facility in each department.

The library is kept up-to-date with latest books and journals each year. It also has computer systems with internet and access to e- journals subscribed to by University of Delhi.

To encourage research, dedicated space for research laboratories, central instrumentation facilities will be provided in the new building, the construction of which is under way. These will be well-equipped with instruments, work spaces and laboratories, reading rooms, seminar rooms and computers.

The college has received 9 Innovation Projects in the year 2013-14 and one in the year 2012-13 from the University of Delhi and has allotted separate space to the faculty members involved in the projects so that they can pursue their work without any inconvenience.

The college also maintains the existing infrastructure by ensuring that AMC for certain instruments is done as well as upgradation of these facilities.

**3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments / facilities created during the last four years.**

The college has received a grant of Rs. 3.35 Lac from companies like Medox and Roche to purchase various equipments like the PCR machine, Southern and Western Blotting apparatus, electrophoretic apparatus and various experimental kits. In the last four years, the University of Delhi has provided grants under the Innovation Project Scheme for the purchase of equipments/chemicals, reagents and computers and required non-consumable items.

**3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?**

The students avail the facility of the University Science Instrumentation Center, at the University of Delhi which has advanced instrumentation facility. The students also seek guidance from the collaborators / mentors of Innovation Projects from different reputed institutes such as IGIB, AIIMS, Department of Environment, Govt. of NCT of Delhi and University of Delhi whenever required. They have also visited institutes such as IARI, CAZRI, CWC and NDRI to use their instrumentation facilities. Some faculty members and students also avail the facility of National Medical Library and the Delhi University Library System.

**3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?**

The college library has more than 86,000 books, journals and magazines available to students and teachers and over the last four years 775 reference books, 126 magazines/journals were added along

with the INFLIBNET facility. The library has computer facility for use by both faculty members and students for accessing e-journals. The library provides facilities such as photocopying and printing and it also has a separate air-conditioned reading room for researchers. The library ensures quick purchase of any books and journals that the researchers might require. The college gets Wi-Fi access through the University of Delhi server.

The computer laboratory has recently purchased softwares for mathematics, simulations, bioinformatics and these are upgraded regularly with inputs from other departments. The Geography laboratory is also well-equipped with advanced GIS mapping softwares, Geomedia and Mapinfo.

**3.3.6 What are the collaborative research facilities developed/ created by the research institutes in the College. For example laboratories, library, instruments, computers, new technology etc.**

The University of Delhi has provided computers to faculty members in each department for teaching as well as research purposes. It also provides access to a series of softwares, free of cost, according to the requirements of researchers. The University has also given grants for purchase of instruments for science laboratories and books, journals and magazines for the library. The students who are involved in Innovation Projects can avail the research facility of mass spectroscopy, HPLC, DNA sequencing, primer synthesis, microbial identification, Schrodinger software for structural prediction of proteins and molecular docking in collaboration with other research institutes.

**3.4 RESEARCH PUBLICATIONS AND AWARDS**

**3.4.1 Highlight the major research achievements of the staff and students in terms of:**

- Patents obtained & filed [Process & product]
- Research studies or surveys benefitting the community or improving services
- Research inputs contributing to new initiatives and social development



**Details of patents filed by faculty members:**

Faculty	Patent Details
Rakesh Bhatnagar and Parul Kulshreshtha	“A novel bispecific monoclonal antibody capable of cross reacting with the lethal factor (LF) and edema factor (EF) and neutralizing edema toxin (ET) as well as lethal toxin (LT) of <i>Bacillus anthracis</i> ” Indian Patent Application no. 714/DEL/2010 International [PCT] Patent Application No. PCT/IN2011/000191

The college attempts to translate various projects that are carried out to benefit the community in general.

- The Eco-club of the college conducted a workshop “**Ankuran**” on 28<sup>th</sup> January, 2015 to disseminate the advantages of using medicinal plants in daily life.
- The college launched a One-Day National Campaign “**Yamuna Awareness: A Shivaji College Initiative**” on 30<sup>th</sup> May, 2014. The research group of SHC-203 investigated the physico-chemical parameters of the Yamuna water and found it to be highly toxic. The aim of this event was to spread awareness regarding the toxicity of the Yamuna river amongst the inhabitants of the settlements of the area.
- The members of Innovation Project SHC-203 developed a **Microbial fuel cell** using waste water which is beneficial as an alternate source of energy.
- The members of Innovation Project SHC-204 have been involved in **water harvesting** in the Nagaur District leading to better conservation and use of rainwater by creating awareness in schools and remote villages.
- The members of the Innovation Project SHC-205 have actively been involved in analyzing the **quality of milk** available in the locality. They made kits to detect high levels of impurities in milk samples.
- Members of Innovation Project SHC-206 have been involved in finding **real time traffic solutions**.
- Students of the Department of Geography visited **Sardar Sarovar Maheshwar dam** and **Mandovi river** areas to conduct a survey and come up with economically viable suggestions for the rehabilitation of the region.

**3.4.2 Does the institute publish or partner in publication of research journal (s): If 'yes' indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database:**

The college does not presently publish any research journal.

**3.4.3 Give details of publications by the faculty and students:**

Department	Publication per faculty	No. of papers published by faculty & students in peer reviewed journals (national/international)	No. of papers published by faculty & students in non-peer reviewed journals	Books authored/Chapter in books	Books edited
B.B.E	2	7	2	4 (authored)	-
Biochemistry	2.5	20	-	4 (chapters)	2
Botany	1.35	12	2	3 (authored)/2 (chapters)	-
Chemistry	1.18	20	-	1 (chapters)	-
Commerce	3.25	53	-	5 (authored)/4 (chapters)	-
Computer Science	3.7	24	-	3 (chapter)	-
Economics	0.1	1	-	-	-
English	2.3	15	-	1 (authored)/2 (chapters)	13
Geography	0.4	-	-	2 (authored)/1 (chapters)	-
Hindi	3	2	15	20 (authored)/1 (chapters)	6
History	3.62	5	11	3 (authored)	6
Mathematics	2.5	52	1	-	-
Physics	2.6	35	-	1 (authored)	-
Physical Education	-	2	1	-	-
Political Science	-	2	2	-	-
Sanskrit	0.875	8	3	3 (authored)	-
Zoology	2.4	33	2	1 (chapter)	-

### 3.4.4 Provide details (if any) of

- Research awards received by the faculty
- Recognition received by faculty from reputed professional bodies and agencies nationally & internationally

<b>Awards and Outstanding Achievements</b>		
<b>RESEARCH AWARDS</b>		
<b>FACULTY MEMBER</b>	<b>AWARD</b>	<b>YEAR</b>
Dr. Malik D, Dr. Singh S, Thakur J, Dr. Nijhawan S	Best Poster presentation on "Epilepsy" at EPICON, the International conference (IC) on Epilepsy organized by SGTB Khalsa College, DU	2014
Dr. Bamel K, Dr. Nijhawan S	Best Poster presentation on "Epilepsy" at EPICON, the International conference (IC) on Epilepsy organized by SGTB Khalsa College, DU	2014
Dr. Nijhawan S, Dr. Kapur A, Dr. Malik D, Dr. Singh S, Thakur J	Best Paper presentation "Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water" IC-LIFE, organized by Jaypee Institute of Information & Technology, Noida	2014
Dr. Nigam A	Awarded the "Young Scientist Award" by Association of Microbiologists of India (AMI)	2014
Dr. Tripathi S	Young Scientist Fellowship under Fast-track Scheme by SERB, Govt. of India	2012
Dr. Dua A	"Best Poster Award" at the 53rd Annual Conference of Association of Microbiologists of India (AMI)	2012
Dr. Kumar J	"Young Investigator Award" for best scientific research presentation at Indian Veterinary Research Institute (IVRI), Izatnagar	2012
Ms. Rana R	Scholarship for Faculty Training Program to pursue M.Sc Economics (Finance)	2011
Mr. Raheja S S	Scholarship for Faculty Training Program to pursue M.Sc Economics (Econometrics)	2011
Mr. Ram K	Scholarship for Faculty Training Programme to pursue M.Sc. Economics	2011
Dr. Mal A	Erasmus Mundus External Cooperation Window, Post-doctoral Fellowship, NTNU, Trondheim, Norway	2011
Dr. Kulshreshtha P	"Best Poster Award" at Bacillus ACT, International conference	2010 2011
Dr. Mal A	Erasmus Mundus External Cooperation Window, Post-doctoral Fellowship, NTNU, Trondheim, Norway	2010
<b>INNOVATION PROJECTS</b>		
SHC-201	"Certificate of Appreciation" for Best Display for the theme "Health Issues" at Antardhwani 2015, DU	2015
SHC-203	"Certificate of Appreciation" for Best Display for the theme "Environmental Issues" at Antardhwani 2015, DU	2015

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SHC-204	“Certificate of Appreciation” for Best Innovative Idea for the theme “Environmental Issues” at Antardhwani 2015, DU	2015
SHC-206	“Certificate of Appreciation” for Best Display for the theme ‘Economic Development’ for Antardhwani 2015, DU	2015
<b>EXCELLENCE AWARDS</b>		
Dr. Jeetendra Aggarwal	“Teaching Excellence Award” by University of Delhi on its Foundation Day	2014
Dr. Amarjiva Lochan	International Buddhism Today “Academic Excellence Award”, Ho Chi Minh City, Vietnam	2014
Dr. Ruchira Dhingra	Saraswati Ratna Samman 2013 (Akhil Bhartiya Svatantra Lekhakh Manch)	2013
Mr. Meghraj Meena	Sanskrit Talent Award honoured by Delhi Sanskrit Academy	2012
Dr. Tejbir S. Rana	“Rastriya Gaurav Award” by India International Friendship Society	2012
Dr. Tejbir S. Rana	Teachers’ Day Award -2012 for outstanding contribution in the sphere of educational excellence by Lions Club International	2012

## **3.5 CONSULTANCY**

### **3.5.1 Give details of the systems and strategies for establishing institute-industry interface.**

The Placement Cell is constituted by the members of the Staff Council and it interacts with various employment-generating industries. It is managed by a team of teachers and final year students. Seminars and motivational interaction programs, where experts from academics and industries are invited, are held for the benefit of the students. The aim of such sessions is to promote a culture of entrepreneurship and to also improve the soft-skills and technical proficiency of the students. As an outcome, many students are recruited by industries through campus placement drives. The students of Commerce and Business Economics regularly visit various industries to understand their functioning.

### **3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?**

Shivaji College promotes consultancy through its teachers who have specializations in various fields. It encourages teachers to supervise scholars at the M.Phil. and Ph.D. level. The college puts the profiles of the faculty members on its website which is in the public domain. Teachers are free to interact with industries, corporate houses, NGOs and other commercial institutions with prior permission.

One of the teachers of the college is currently involved in extending consultancy as third party observer for Tehri NHPC social welfare works in the Tehri, Barabanki and Rae Bareilly districts.

**3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?**

The college provides research laboratories, logistics, administrative support and related infrastructure to enhance the skills of faculty members. The college welcomes industries and Public Sector Undertakings to interact with its faculty members. Shivaji College organized two five-day programs on Soft-skill development for the Delhi Police where teachers delivered lectures for the betterment of the Police service.

**3.5.4 List the broad areas and major consultancy services provided by the institution and revenue generated during the last four years.**

Although the college encourages consultancy services, it does not generate any revenue from the same as it is funded by the UGC and Govt of NCT Delhi.

**3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: institution) and its use for institutional development?**

Since the college does not generate any income through consultancy it does not have any policy for the sharing of the same.

**3.6 EXTENSION ACTIVITIES AND INSTITUTIONAL SOCIAL RESPONSIBILITY (ISR)**

**3.6.1 How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?**

The college frequently organizes programmes that sensitize the faculty and students towards Institutional Social Responsibility (ISR). The various societies of the college have the objective of promoting the holistic development of the students for service orientation leading to good citizenship.

The **Women's Development Cell (WDC)** organized national and international conferences and workshops to sensitize students and local authorities/community towards gender related issues. The WDC has launched an initiative called the **Peace People Society (PPS)**, where

students have been involved in helping homeless women by escorting them to the shelter home “**Sudinalya**”, with the support of the rescue team and local police. The WDC instituted the **Jijabai Women’s Achievers Awards** to felicitate women who have contributed towards changing the lives of women. The Cell organized an **Organ Donation Sensitization Campaign** to highlight the cause of organ donation. Taking cognisance of the rise in crimes against women, the Cell organized a “**Self-defense workshop**” for girls. The students associated with the WDC also went to slum areas adjoining the college to interact with women.

The college has an active **National Cadet Corps (NCC)** programme and its cadets have won many accolades and felicitations for their social activities. The **National Service Scheme (NSS)** has carried out several social outreach programmes like **Blood Donation Camps** to sensitize students and to make them aware of their responsibilities towards society.

Two five-day **Soft-Skill Workshops** for the staff of the Delhi Police were conducted where the college took up the initiative of soft-skill training for police personnel. The members of the Innovation Project SHC 207 entitled ‘**Doing “nothing”: The invisible work of women**’ conducted a study that examined the value of the unpaid work of women. It focuses on the impact it has on their lives, and also questions the association of women and unpaid work in a patriarchal society. The college also organized a cleanliness drive under the “**Swachh Bharat Abhiyaan**”.

**Vayam** is the dramatics society of Shivaji College which regularly performs street plays on relevant issues to increase social awareness, its efforts have met with success within and outside Delhi and it is one of the most talked about theatre groups in Delhi University. The college also celebrated a **red-ribbon-day** to generate awareness regarding **AIDS**. The Eco-Club of the college conducted **Vanmahotsav** and planted trees in the college.

### **3.6.2 What is the Institutional mechanism to track students’ involvement in various social movements / activities which promote citizenship roles?**

The college has coordinators who keep detailed records of student participation and manage all the outreach programmes. There are individual initiatives that students take up on their own and the college

encourages them with all possible means. The college has an active Student's Union for this purpose which ensures the continuum of the legacy of the college. Moreover, there is a very active Staff Council as well as a Student Advisory Committee that ensure that students are guided properly while executing all their activities.

**3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?**

A process of continuous student appraisal is maintained by the college to ensure that the high standard of education is adhered to. Feedback is taken from the students on a regular basis for improvement in the required areas. Suggestion boxes and registers in the college campus allow students to convey to the administration various improvements that can be effected in the college. Their anonymity further encourages the students to address their grievances at ease. The Principal's office is always open to the students for addressing any problem. Individual student results are discussed at departmental level and wherever required. Internal assessment marks are uploaded on the college website. Students are given an opportunity to raise their queries with the concerned teachers. The results of the students, placements and alumni of the college solicit the stakeholders perception.

**3.6.4. How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.**

The college is involved in various outreach programmes which help in generating a civic sense and cultivate the notion of individual responsibility in the students towards society.

- A **Lab Skill-Training Programme** was conducted by the college aiming at bringing all laboratory technicians at par with the ever-changing world of science and research.
- **“Yamuna Awareness: a Shivaji College Initiative,”** an event was organized in association with GGSIP University, at the Okhla Barrage to create awareness about the levels of heavy metals and microbial load of the river in the human settlements beside the banks of the Yamuna.

- The **WDC** organized the event “**Celebrating Womanhood**” at the India International Center.
- The college, through the WDC organized an international conference on “**Empowerment of Women in Developing World**” to create awareness about **Disaster Management** and the roles that can be played by women.
- An “**Organ Donation Sensitization Campaign**” was organized by the WDC to sensitize society and encourage them to take a pledge on organ donation.
- The Eco-Club also organized excursion programmes in where students along with teachers visited the **Yamuna Bio-diversity Park**. The members also interacted with biodiversity experts who helped them gain insight into the importance of maintaining the biodiversity of a region and the measures that need to be taken.
- A Blood Donation Camp with the title “**You Can Make the Difference**” was organized by the Student’s Union in association with **Blood Connect** which was followed by awareness-raising sessions and a street play by Vayam.
- “**International Day for the Girl Child**” was celebrated by the WDC and an interactive session, “**It’s Time we Talk**” was organized in association with Youth Concepts (Wellness Division, Pfizer) and FOGSI.
- The students associated with **PPS** undertook several visits to **Sudinalay- A Shelter Home for women in distress**.
- The WDC through **Jijabai Awards** felicitates women who have been involved in bringing about a change and becoming a source of inspiration to others.
- The WDC released a book titled “**Anujivami: I Survive**” which brings together inspiring real life stories of women. Teams of students of Foundation Courses (FYUP) and their respective teachers visited women from different sections of society in the city.



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Criterion III: Research, Consultancy and Extension

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S. No.	Particulars	Amount (Rs)
1.	WDC International Conference 2013	4,79,740
2.	Organ Donation Camp	40,446
3.	Eco-Club events	2,41,962
4.	Blood Donation Camp	10,070
5.	Jijabai Awards	36,888
6.	Celebrating Womanhood 2014	49,940
7.	Lab Skills Training Programme	21,391
8.	WDC event & Book Release	190,000

**3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?**

On the Orientation Day the Principal encourages the students to participate in the NSS, NCC, eco-club and cultural activities in the college. Students themselves constitute societies and motivate each other to become members. The Institution plans and organises its extension and outreach programmes primarily through the NSS, NCC Units, the WDC and the Eco-Club, which have designated convenors to guide and monitor their activities. The college promotes the participation of students in such extension activities by placing advertisements on notice boards, pertaining to such activities. The college also makes sure that the participation of students does not go unrecognized and they are formally felicitated on the annual day before the whole college. Eminent social workers and representatives of NGOs are invited to interact with students and tell them about the need for engaging in these activities.

The **NSS Unit of Shivaji College** is committed to the cause of social service and in this pursuit several initiatives have been taken up from time to time. Some of the events organized by the NSS are as follows:

- The NSS Unit organized a **soft skills programme** to create awareness on Disaster Management in association with State Unit of NDRF.
- NSS volunteers participated in the **Voter Awareness Programme** organized by the Election Commission.
- Two **soft-skills Training Programmes** were organised for

Constables of **Delhi Police**.

- The NSS volunteers participated and attended a debate on “**Global Nuclear Disarmament**” organized by the Ministry of External Affairs.
- **Phenology study** related to the analysis of behavioral patterns of plants and trees was carried out by NSS volunteers. The results of the study were submitted to NSS Centre, University of Delhi.
- **Blood Donation Camp** was conducted and 138 students donated their blood to Lions Blood Bank, Delhi.
- The N.S.S. also organized a **cleanliness drive** in the Sports Ground of the college which witnessed the participation of 200 student volunteers.

The **N.C.C. Unit** of Shivaji College (girls and boys) is a full-fledged community of motivated and trained youth that exhibit leadership qualities. Apart from the routine NCC activities the cadets are also involved in various extension activities and community service programs.

**Other Outreach Programs:**

- The WDC organised a **Cancer Awareness Programme** in collaboration with Cipla to highlight the role of tobacco in causing cancer.
- The **Art of Living** group was invited and it staged a drama on gender related issues.
- A camp was organised by the **International Youth Forum**. They spoke on pressing social issues and invited applications from students for participation in their camp.
- The **Rama-Krishna Mission** gave a presentation and screened a short film on the life and ideology of Swami Vivekananda. The book “**Awakening India**” was distributed amongst students and staff.
- A **Collection drive ‘Rahat-e-floods’** was set up in association with the **NGO ‘Goonj’** - it was a drive to obtain clothes for the people in flood-affected areas in Bihar.

**3.6.6 Give details on social surveys, research or extension work (if any) undertaken by the College to ensure social justice and empower students from under-privileged and vulnerable sections of society?**

The college believes in imbibing the spirit of equality and social justice in its students at all possible levels. For this purpose an **Equal Opportunity Cell** is maintained by the college to ensure parity amongst students. It also adopts measures of “**Inclusive Practices**” for the students of different social background. The college also has a students’ aid fund which caters to the needs of the meritorious students belonging to the underprivileged sections of the society. The W.D.C. and the N.S.S. units of the college work towards involving all students in various activities for the promotion of education amongst economically-underprivileged students in schools.

**3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students’ academic learning experience and specify the values and skills inculcated.**

Students imbibe the need to go beyond academics in extension activities that involve participation in the NCC, NSS and rural projects. They get to know about the economic backgrounds of many of their classmates and get a more vivid picture of rural India. The activities of the Eco-club help students in inculcating environmental consciousness. Through various outreach programmes, the students also get the opportunity to gain exposure and nurture their skills towards developing their interpersonal relationships. Their participation in various campaigns and rallies enables them to understand their social responsibility and the various problems that society faces. Extension activities inculcate in them the values of team-spirit, compassion, selflessness, community participation and they bring about an understanding of the lifestyles of different social groups and their problems.

**3.6.8 How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities?**

The NSS units and the WDC organise various camps such as general health check-up camps, blood donation camps and community-development work with the consent of community members and in consultation with them.

- The WDC celebrated the '**International Day for the Girl Child**' where it conducted a slogan writing competition on the theme "**Save life – Save the Girl Child**". In association with the **Youth Concepts** (Wellness Division, Pfizer) and FOGSI, a community event called '**Its Time We Talk**' was also organized, addressing the queries on women's well being and reproductive health.
- **Blood Donation Camps** were organized with the aid of **Blood Connect** and the event involved the participation of students as well as members of the neighbourhood.
- An **Organ Donation Sensitization** campaign organized by the WDC met with tremendous success, as it saw several students and people of the adjoining areas pledging their support to the cause of organ donation.

**3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.**

The college involves itself with various organizations to create awareness on socially relevant issues:

- The college successfully conducted workshops on **Self-defense in association with the Delhi Police**.
- A **Cancer Awareness Programme** was organized by **Cipla** highlighting the role of tobacco in causing cancer.
- **The Art of Living** organization staged a play on issues related to women.
- The **WDC** organized an **awareness programme on Disaster Risk Reduction and Mitigation** in conjunction with the **NIDM** and **WSDC**.
- Several students worked with the **NGO 'Goonj'** to take part in '**Rahat-e-floods**' - a collection drive to obtain clothes for people in flood-affected areas.
- The WDC invited '**The Youth Concept- a wellness division of the Pfizer**' to conduct an event addressing queries concerning women's

well being and reproductive health.

- The WDC organized a **Cervical Cancer Awareness Camp** with a highly informative talk being delivered by the Head of Gynecology at **Medanta, The Medicity**.
- The **PPS of the college** – an initiative of the WDC, conducted a drive to aid destitute and homeless women. 25 students underwent a rigorous and professional training course run under UPF-India, FFWPU-India, WFWP –India (all United Nations related organizations).
- **Jijabai Women Achievers’ Award** was instituted in 2010-11 to recognize and encourage extraordinary women who have contributed towards social and moral resurrection at the ground level in society. The women invited also talk to students about their organisations and their achievements. Some of the awardees in 2014 were Jo Chopra McGowan & Manju Singhania who established **Karuna Vihar**, a centre for children with Cerebral Palsy, Autism and Down syndrome.

**3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/ community development during the last four years.**

- The college won the prestigious **Commendation Award** and prize money of Rs.1 lac under the category “**Award For Good Practices**” in the year 2013 at Antardhwani, the annual cultural festival of Delhi University.
- The college has received numerous accolades for the activities of its **NCC wing**. Both the girl's and the boy's wing of the college NCC unit won a total number of 53 medals.
- **Vayam - The street-theatre society** received over 150 national level prizes. The society has also received a special award by **His Excellency Dr. A P. J. Kalam, ex-president of India**.

**3.7 COLLABORATIONS**

**3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.**

The college does not have any official collaboration with industries/research institutes. However, the students and faculty involved in the Innovation Projects have benefited from the expertise of the mentors associated with them. The mentors belong to institutes of repute such as The Academy of Scientific & Innovative Research, CSIR, University Science Instrumentation Center (USIC), University of Delhi, Institute of Genomics and Integrated Biology (IGIB) and to the parent departments at DU. The students avail the research facilities present at these institutes.

**3.7.2 Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.**

The college has an MoU with Fringe Habitat India, House no. 567, VPO, Mukhmelpur, Delhi-110036 for “Rural Environmental Awareness”. It has also collaborated with different institutes/government bodies for the organization of international/ national conferences. Some examples are:

- Yamuna Awareness Campaign carried out in collaboration with **GGSSIP University, Delhi** in June, 2014.
- 1st WDC International Conference on “Empowerment of Women in the Developing World” was organized in collaboration with the **Women’s Studies and Development Centre, University of Delhi and NIDM, Ministry of Home Affairs, Govt. of India** in April, 2013.
- 1<sup>st</sup> National Platform on “Gender Mainstreaming in Disaster Management” was organized in collaboration with the **NIDM, Ministry of Home Affairs, Govt. of India** in April, 2013.
- The existing Placement Committee which works towards improving corporate relations, aims at increasing **industry interaction, networking with corporations** and providing corporate exposure to the students.
- An International Conference on “Science, Spirituality & Humanity: Transcending Discipline Barriers” was organized by Shivaji College in collaboration with **NIDM & Department of Philosophy, University of Delhi** in February, 2011.

**3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment/creation/up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/new technology / placement services etc.**

- Industry - institution interaction has helped students in securing internships over the last four years.
- Companies such as MEDOX & ROCHE collaborated with the Department of Biochemistry (2010) in organizing the National Workshop on “**RNAomics: Isolation to Interference**” for technical support. Instruments such as PCR, gel doc, ice flake machine, autopipettes were purchased for organizing this workshop with the financial support provided by DST, DBT, ICMR & CSIR.
- Each year organizations such as the Bombay Stock Exchange, ICICI are invited for conducting talks and workshops on stock market and banking. Seminars are also conducted annually on topics like “**Art of Resume Writing**” and “**Preparing for Group Discussions**”. Thus, students are groomed in all aspects to enable them to face interviews and step into the world confidently.
- Several companies recruit our students in their firms.

The total numbers of placements in the past four years are as follows:

Year	Placements	Year	Placements
2010-2011	14	2012-2013	112
2011-2012	17	2013-2014	68

**3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the College during the last four years.**

In the last four years, 171 resource persons/eminent scientists/personalities were invited to the college for various events. Following is a list of few of them:

- **Prof. Dinesh Singh**, Vice Chancellor, University of Delhi
- **Prof. A. K. Tyagi**, Vice Chancellor, GGS, IP University, New Delhi
- **Prof. Ian Bocking**, Professor & Head, School of Asian Studies,

University College Cork (UCC), Cork, Ireland

- **Ms. Nirmala Sitharamam**, Union Minister, Commerce and Industry
- **Ms. Sheila Dixit**, Former Chief Minister of New Delhi, India
- **Prof. Yogendra Yadav**, Eminent Social Scientist, Member of Aam Aadmi Party
- **Mr. Ajay Maken**, Former Hon'ble Minister for Poverty Alleviation & Urban Development, Govt. of India
- **Ms. Alexandra Soloviva**, Deputy Country Director, United Nations Development Programme, New Delhi
- **Mr. Amitabh Ghosh**, Ex-Governor, Reserve Bank of India
- **Prof. Ashis Nandy**, Director, Centre for Study of Developing Societies, Social and Political Theorist
- **Mrs. Brinda Karat**, Member, Politburo, CPI (M)
- **Mr. John Roche**, Head, India Office, International Federation of Red Cross & Red Crescent
- **Dr. Karan Singh**, Member, Rajya Sabha; Awarded Padma Vibhushan in 2005
- **Dr. Najma Heptulla**, Politician, Hon'ble Union Minister of Minority
- **Ms. Mamta Sharma**, Former Chairman, National Commission for women
- **Prof. Manohar Lal**, Director, SOCIS, Indira Gandhi National Open University, New Delhi
- **Dr. Narendra Jadhav**, Member, Planning Commission, Government of India, National Advisory Committee
- **Prof. Radha Kumar**, Former Interlocutor, Jammu & Kashmir
- **Subramanian Swamy**, Leader, Bharatiya Janata Party
- **Prof. Atul Sharma**, Former Vice Chancellor, Rajiv Gandhi University, Itanagar
- **Mr. C.P. Bhatt**, Environmentalist & Social Activist; Awarded the Padma Bhushan



Criterion III: Research, Consultancy and Extension

- **Prof. Githa Hariharan**, Awardee, Commonwealth Writers Prize for Best First Book in 1993, Jamia Milia University
- **Prof. H.Y. Mohan Ram**, Indian National Science Academy, Honorary Scientist, New Delhi
- **Prof. K.K. Agarwal**, Former Vice Chancellor, GGSSIP University

The college has organized: **2** International conferences, **6** National level symposia/seminars and more than **50** departmental academic festivals.

S. No.	Event Organized	No. of participants	Funding agency
<b>INTERNATIONAL CONFERENCES</b>			
1.	1st WDC Conference on “Empowerment Of Women In The Developing World” organized in association with Women Studies and Development Centre, University of Delhi & NIDM, Ministry of Home Affairs [2013]	International: 15 National: 600	NIDM and Shivaji College
2.	International Conference on “Science, Spirituality and Humanity: Transcending Discipline Barriers” held at University of Delhi Main Campus, Delhi Organized in association with Department of Philosophy, University of Delhi & NIDM, Ministry of Home Affairs [2011]	International: 39 National: 700	UGC, CSIR, DST, ICMR, NIDM, Ministry of Home Affairs & Shivaji College

<b>NATIONAL CONFERENCES/SEMINARS</b>		
S.No.	Title	Year
1.	Recent Historiographical Trends: Whose Account is it Anyway?	2014
2.	“Are Agendas Driving History Writing? Is the Discipline becoming Richer or Poorer?”	2013
3.	“The Line That Divides: Understanding Partition From Women And/In Partition Narratives”	2013
4.	“Celebrating Delhi” through the ages	2011
5.	“Business & Economics”	2011
6.	“Frontiers and Avenues in Plant Sciences”	2011

- 3.7.5 How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated a) Curriculum development/enrichment; b) Internship/ On the-job training; c) Summer placement; d) Faculty exchange and professional development; e) Research; f) Consultancy; g) Extension; h) Publication; i) Student placement; j) Twinning programmes; k) Introduction of new courses; l) Student exchange; j) Any other**

The college has an MoU on “Rural Environmental Awareness”, with Fringe Habitat India, House no. 567, VPO, Mukhmelpur, Delhi-110036. It is currently in a state of gradual expansion and is in the process of engaging itself with various institutes that may result in more formal MoUs and agreements.

- 3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations.**

Workshops, seminars, awareness programmes are organized by the college which involve eminent resource persons from industries and institutes of higher learning. As mentioned in 3.1.4 the college regularly encourages students to do summer trainings in research institutes and industries.

*Imagination is more important than knowledge. Knowledge is limited, imagination encircles the world.*

*Albert Einstein*

## CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

### 4.1 PHYSICAL FACILITIES

#### 4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

Enhancement of infrastructure goes hand in hand with the changing needs of the institution. Hence as and when a new course is introduced or the number of students is expected to increase, steps are taken to add to the existing infrastructure. College built additional classrooms with the increase in the number of students admitted after the reservation for OBC category students. Likewise additional rooms/labs were constructed when new courses were added.

Expansion of infrastructure is looked after by the College Building Committee constituted by the College Governing Body in accordance with UGC guidelines on the subject. This committee includes not only the College authorities but also representatives of the University and the CPWD and experts like accredited architects.

The day to day maintenance and expansion of the infrastructure is looked after by College Development Committee and the General Purchase Committee appointed by the college staff council.

The college has appointed staff to provide logistic support for creation and maintenance of infrastructure. This staff includes a caretaker, an electrician and a plumber. In addition, services of a part-time site engineer are also utilized as and when needed.

#### 4.1.2 Facilities Available for:

##### (a) Curricular and Co-Curricular Activities

The college has a campus spreading over ten acres. Land measuring four acres is used for academic purposes, one acre for residential purposes and five acres as sports complex. The total built up area of the teaching and administrative blocks measures 10,002 sqm. The college building includes basement and three floors.

##### The Details of college infrastructure are as under:

Particulars	Ground Floor	Ist Floor	IInd Floor	IIIRD Floor	Total
1. Classrooms	14	10	13	9	46
2. Tech. enabled learning resources					
a) Classrooms and Labs with MMPs	12	8	17	4	41
b) Computer labs	2	2	---	---	4

**Criterion IV: Infrastructure and Learning Resources**

c) Internet and Wi-Fi facility	Entire Campus	Entire Campus	Entire Campus	Entire Campus	Entire Campus
d) e-learning library	---	1	---	---	1
e) Auditorium/ seminar hall with Multimedia Facilities	---	1	---	---	1
3. Tutorial Rooms	4	2	---	---	6
4. Laboratories	3	3	6	2	14
5. Museum	---	---	1	---	1
6. Dark Rooms (Physics dept.)	---	2	---	---	2
7. Library	---	1(3 Storey)	---	---	1
8. Research Project Rooms	1	1	1	1	4
9. Disabled-friendly and P.I.O Room	1	---	---	---	1
10. General Staff Room	1	---	---	---	1
11. Departmental Staff Rooms	3	5	4	1	13
12. Staff Conference Room	1	---	---	---	1
13. Botanical Garden	300 Sq. Yd.	---	---	---	1
14. Lab. Staff Room and Preparation Room	4	2	3	1	10
15. Photocopier Room	1	1	---	---	2

**(b) Extra-curricular Activities:**

Particulars	Ground Floor	Ist Floor	IInd Floor	IIInd Floor	Total
1. Sports ground		---	---	---	
a) Outdoor courts	9	---	---	---	9
b) Indoor courts	2	---	---	---	2
c) Changing rooms and store	2				2
2. Girls Common Room	1				1
3. Students Union Room	1				1
4. Health Care Center (W.U.S)	3 Room				1
5. Canteen	1				1
6. Kiosks	2				2
7. Washrooms	10 (15W.C)	7 (21W.C)	6 (12W.C)	4 (6W.C)	27

Criterion IV: Infrastructure and Learning Resources

8. NCC Room (Boys & Girls)	1				1
9. Paper Recycling Unit	1				1
10. Theatre Practice Area	1				1
11. Cultural Activity Zone	500 sq. mtr.				1
12. Electricity Room	1				1
13. Generator 100kW Silent Set	1				1
14. Fountain Room	1				1
15. Security Guard Room	1				1
16. Water Pump Room	1				1
17. Principal's Office	1				1
18. Committee Room	1				1
19. P.A to Principal Room	1				1
20. Vice-Principal's Office	1				1
21. Bursar Office	1				1
22. Admin. & Accounts Office (with Seven counters)	1				1
23. Bank	1				1

**4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/ augmented and the amount spent during the last four years (Enclose the master Plan of the Institution/campus and indicate the existing physical infrastructure and the future planned expansion if any).**

The college has a staff council to look into matters pertaining to academic planning. It constitutes various committees, following of which plan and ensure that the infrastructure is in line with the academic growth needs and is optimally utilized:

1. Academic Supervisory Committee
2. Academic Committee
3. Timetable Committee
4. Development Committee
5. General Purchase Committee
6. College Building Committee (Constituted by the Governing Body of the college)

The conveners of the committees submit proposals and action plans as per requirements before the commencement of the academic session. Necessary action is taken on the proposals to augment and utilise the infrastructure. The academic supervisory committee looks into the workload and the Timetable Committee formulates the time-table according to availability of classrooms and labs. Rooms of different sizes are allotted according to the size of classes. The General Purchase Committee ensures purchase of teaching aids and the class room/lab infrastructure and maintenance related items. The Development Committee upgrades and maintains the quality of the existing building and classrooms.

The College Building Committee looks after the requirement for new rooms and laboratories and upgrading the college campus in the tune of new courses and increase number of students. The committee also looks into the development and upkeep of the residential campus of the college.

The College Building Committee has submitted a proposal for constructing a new academic block adjacent to the existing building within the campus. The proposal has been sent to the Municipal authorities and the Urban Art Commission for necessary approvals.

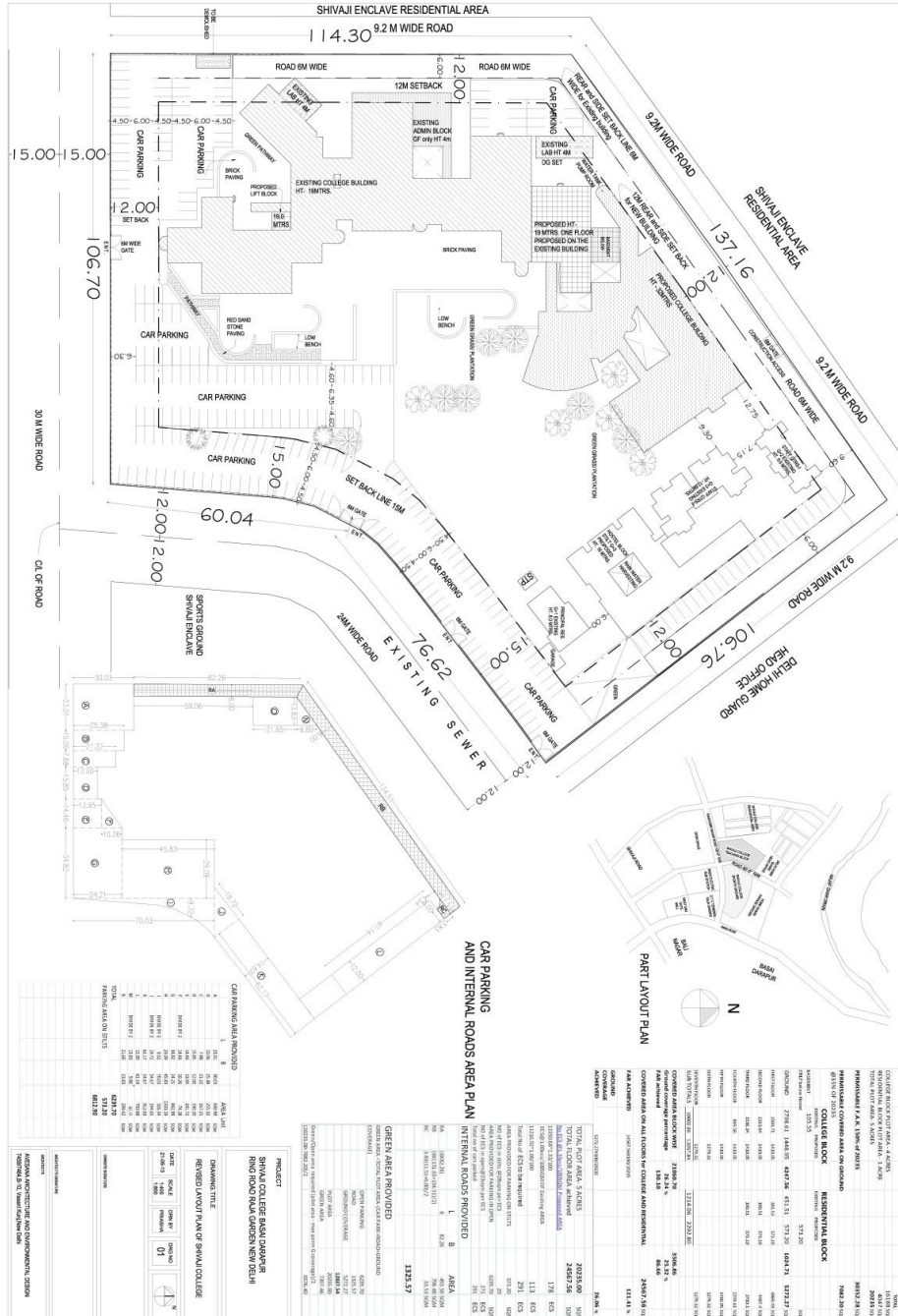
In view of the 50 per cent increase in admissions on account of reservation for OBC category students the College has constructed twelve additional classrooms. Furthermore, old and dilapidated floors of the classrooms and corridors were replaced with kota stone and floor tiles. Pavements and pathways in the campus have been concretised. Three laboratories of the science block (Chemistry, Botany and Biochemistry departments) were upgraded with modern, student-friendly apparatus. All washrooms in the campus have been renovated to improve cleanliness and hygiene.

**Details of Amount Spent on College Infrastructure during the last Four Years:**

<b>Year</b>	<b>Amount Spent (Rs.)</b>
2010-2011	11,261,517.00
2011-2012	9,688,433.00
2012-2013	9,025,914.00
2013-2014	1,259,841.00
<b>Total</b>	<b>31,235,705.00</b>

# MASTER PLAN OF SHIVAJI COLLEGE

## EXISTING AND PROPOSED BUILDING OF THE COLLEGE:



**4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with the physical disabilities?**

The college constructed two disabled-friendly washrooms on the ground floor. There is an Equal Opportunity Cell, headed by a faculty member (preferably from the same category who can understand their needs) to look after the infrastructure and other related requirements of students. The Equal Opportunity Cell has submitted its demand note to the UGC to release the fund of Rs. 10 lacs for additional disabled-friendly washrooms and tactile paths. Installation of two lifts in the college campus is under active consideration.

The college has provided visually handicapped students with an Angel Recording System. The college library is also equipped with Lex software that can scan a book and convert it into Braille and vice-versa. The College Library also provides 10 I-Pods, 30 CDs of Braille and 29 Tape Recorders for the Visually Challenged students. Furthermore, the college provides 100% fee concession to students with physical disabilities and also grants them Rs. 4000/- per annum from the Vice Chancellor's fund. One visually challenged student contested for the post of Vice President of Students Union which is an indicator of physical disabilities being no hindrance in the career of a student.

**4.1.5 Details of Residential Facilities and Various Provisions Available Within the College:**

- A) Available residential facility for the staff and occupancy-** The college has three types of residential accommodations:
- i) **Principal's Bungalow-** Converted into tutorial block
  - ii) **Teacher's Flats** - The residential complex has a total of 8 three bedroom HIG flats. All eight flats have been constantly occupied since they became habitable in 2004.
  - iii) **Staff quarters-** The complex has a total of 4 LIG flats. All flats have been in constant occupancy.
- B) Hostel Facilities** - A proposal of a building to accommodate one hundred girl students has been submitted to the Municipal authorities and the Urban Art Commission and is awaiting clearance. This hostel will include a reading room, library, Wi-Fi connectivity, a waiting room for visitors, guest rooms, a tea-stall and laundry facilities. (refer to the master plan provided in 4.1.3)



- C) Recreational Facilities** - For the residents on the campus, the college has a gymnasium, tennis courts, a volleyball court and a basketball court apart from an 800m jogging track. Construction of Common rooms equipped with audio-visual equipment is under consideration.
- D) Facilities for Medical Emergencies-** There is a W.U.S Health Centre, with a pathology laboratory, located within the college and can be accessed during working hours. A number of multi-facility hospitals are located within the radius of half a kilometer from the college.
- E) Library Facilities** - A proposal for a small library in the proposed hostel is also there.
- F) Internet and Wi-Fi facilities** - Since the entire college campus is a Wi-Fi enabled zone, these facilities are to be extended to the residents of the campus.
- G) Uninterrupted Safe Drinking Water Supply** - There is a regular supply of drinking water by the Municipal Corporation. College has an underground storage tank along with separate overhead tanks of 1000 liters each.
- H) Security-** The college building is fully secured with eight feet high concrete walls and four feet barbed-wire fencing. Both the gates of the college and the residential complex are constantly manned by trained security guards who have rotating eight hour shifts round the clock.

#### **4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?**

There is a **W.U.S Health Center** with a pathology laboratory on the campus to extend medical care to the staff and students during working hours. Staff members and their dependents can also consult the doctors on the University Panel and claim reimbursement from the college.

The college provides a **Life Insurance policy of Rs. 1 lac** to each student in case of any fatal accident. Shivaji College is the only college in the university to provide this facility through GIC to all the 3500 students on roll. Five water coolers with RO (**Reverse Osmosis**) facility are installed in the college for ensuring safe drinking water for all.

**4.1.7 Give details of the common facilities available on the campus-space for special units like IQAC, Grievance Redressal units, Women's Cell, Counselling and Career Guidance, Placement unit, Health Centre, Canteen, Recreational space for staff and students, safe drinking water facility, auditorium, etc.**

**Details of Common Facilities available on the campus:**

**a) Space for special units such as-**

1. **Women Development Cell-** One room with computer (with internet) facility.
2. **Counseling and Career Guidance-** One room; and a counsellor to address the problems of the students.
3. **Health Center-** Three rooms: One examination cum consultation room for the doctor; one medication and dressing room and one room for pathology laboratory.
4. **Canteen-** It has an area of 30ft X 60ft, properly ventilated with a high roof and exhaust fans. It has one cooking and one washing room and a counter. There is a water dispenser for the users. Everything is designed and built with utmost care and concern for hygiene and cleanliness.
5. **Auditorium-** The college auditorium has a seating capacity of 350 students. It is equipped with a multi-media projector, multi-purpose stage, centralized air-conditioning, sound-absorbing walls and super speciality sound and light system. The auditorium has four entry points and an emergency exit.
6. **Safe drinking water-** The College has 5 water coolers equipped with Reverse Osmosis systems installed on all floors of the building as per requirement.
7. Shivaji College campus is a **vehicle free zone**. All vehicles are parked outside the college in the enclosed parking lot.
8. College has **CCTV** electronic surveillance with 32 cameras in library and 18 cameras in corridors.

**4.2 LIBRARY AS A LEARNING RESOURCE**

**4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library student/user friendly?**

College has a **Library Committee** constituted by the Staff Council. The committee comprises five to seven teachers from different

departments and a convener. The librarian of the college functions as the ex-officio member of the library committee. The college library has the **e-journal** and **e-library system** and has provided computers along with internet access facility to all users. The main reading hall has been made fully air-conditioned and ceiling of the library has been coated with sound absorbing material. This has provided a peaceful atmosphere to the students to pursue their academic activities. The **OPAC** (Online Public Access Catalogue) system was introduced for the purpose of making the library user-friendly. The tables and the chairs have been provided keeping the comfort of the library users in mind. The new environment friendly LED light system has been installed to ensure proper lighting. The book issue and return counters are computerized and all books have been **bar coded**.

Library has a notice board to display information and a register to record students' feedback. The feedback is checked and analysed and implemented by the librarian.

#### **4.2.2 Provide the details of the following:**

##### **\* Total area of the library**

With its main entrance on the first floor, the library occupies three floors with some vacant space above its two main halls. The **first floor** measures 22.310m x 14.62m. The total area is **326.1722 square meters**. The area of the **second floor** is 14.62m in length and 14.955m in width. The total area of the second floor is **317.8388 square meters**. The **third floor** measures 14.62 m x 6.90 m with an area of **100.878 square meters**.

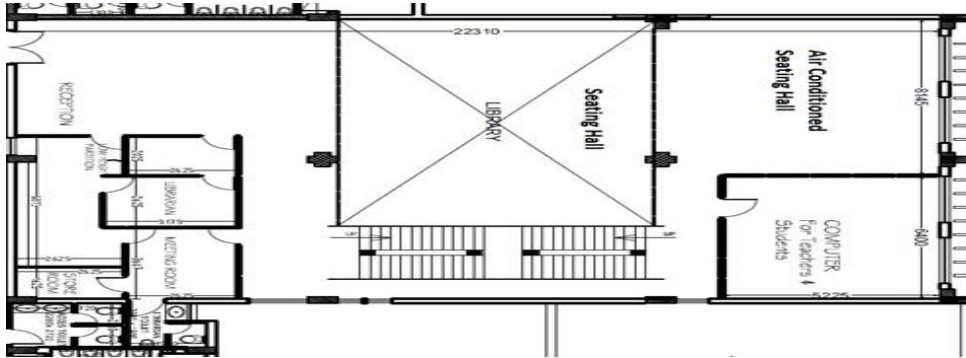
**Gross total** of all floors is  $326.17+317.83+100.87 = 744.87$  **Sqm.**

##### **\*Total Seating Capacity = 150 students**

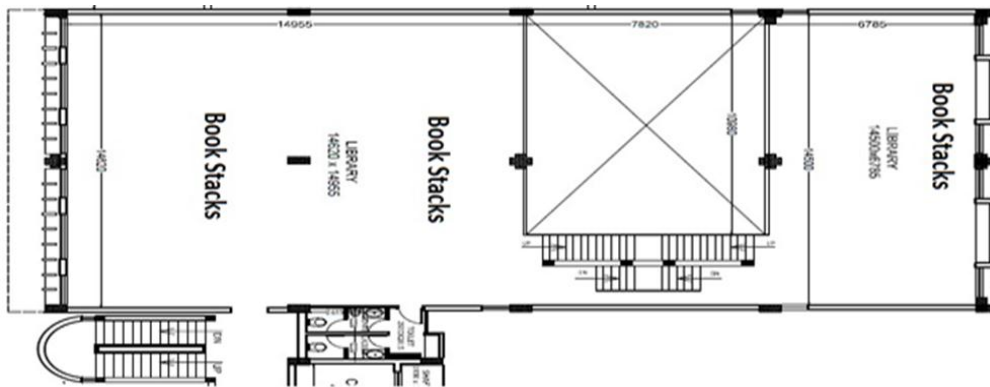
\* **Working hours-** 8:30 a.m. to 5.30 p.m., Monday to Saturday, irrespective of exams or vacations of the students, all the year round. Sundays are holidays.

\* **Layout of the library-** The layout plan is attached displaying the individual reading carrels, lounge area for browsing and relaxed reading area and an IT zone for accessing e-resources.

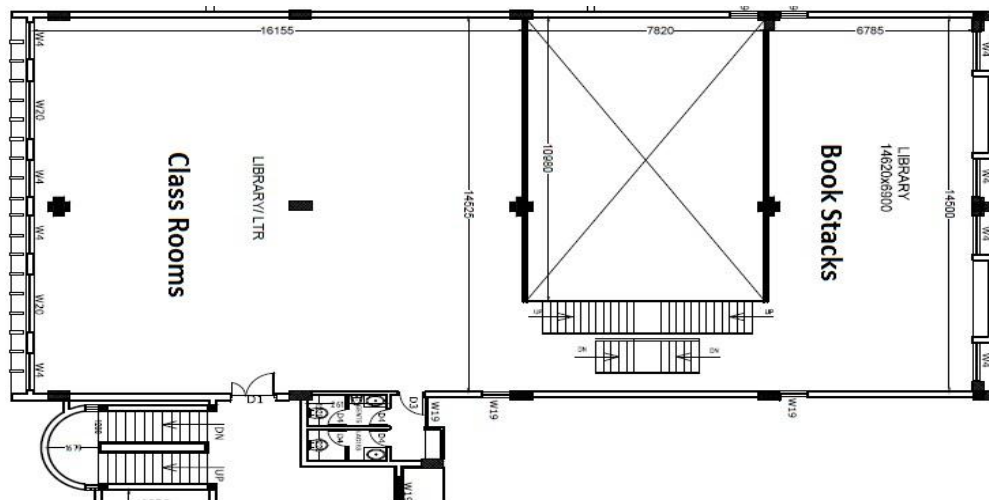
**Library Layout of First Floor – Reading Hall**



**Library Layout of Second Floor – Book Stacks.**



**Library Layout of Third Floor – Book Stacks**



**4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.**

The Library Committee of the college allocates the funds to various departments for purchase of books, e-journals and other reading materials. The teachers- in- charge of the various departments approve the books that are to be bought, by directly interacting with the suppliers. The librarian places the supply order with the concerned publisher or book supplier registered with the Delhi Book Sellers and Publishers Association. The Librarian seeks approval of the Principal for all procurements. The college also organizes a book exhibition for three days on the campus where more than fifty publishers and distributors display their publications. The students and the teachers make their personal purchases and the teachers- in-charge recommend the books to be purchased for the library. Students of other colleges of the university also visit the exhibition and avail its benefits.

**Details of the amount spent on procuring new books, journals and e-resources during the last four years:**

S. No	Library Holdings	2013-14		2012-2013		2011-2012		2010-2011	
		NO.	Total Cost (RS.)	NO.	Total Cost (Rs.)	NO.	Total Cost (Rs.)	NO.	Total Cost (Rs.)
1.	Text Books	2762	1719371	2096	1028274	2851	1094837	2698	1401488
2.	Ref. books	543	88245	20	21362	96	85939	116	60379
3.	Newspapers	28	37564	26	34736	25	29445	25	25655
4.	Magazines/ Journals	28	25508	27	19987	27	18161	44	44315
6.	e-Resources	1(Inflibnet)	5000						

**4.2.4 Details on the ICT and other tools deployed to provide maximum access to the library collection:**

**\*OPAC** – The College has two OPAC (Online Public Access Catalogue) systems, one for students and one for teachers. The OPAC system allows the students and teachers to:

1. Check the availability and status of the book in the library,
2. Give feedback and suggestions, and
3. To see the no. of books that he or she has already got issued,

**\*Electronic Resource Management package for e-journals:** The College has procured **INFLIBNET e-journal** portal access and it is

offered to all the students and teachers who are provided separate IDs and passwords to have access to the INFLIBNET e-journals.

\* **Federated Searching Tools-** INFLIBNET e-journal provides discipline based information where students are equipped with data and information searching mechanism.

\* **Library Website:** The College has a composite website of the institution and one section is devoted to the library which outlines the available facilities.

\***In- house/ Remote Access to e-publications:** INFLIBNET e-journal facility and online access to Delhi University Library System is available for all the teachers and students and they can access 3000 e-journals and one lac e-books on various fields related to under graduate and post graduate courses and research related material.

\***Library Automation:** The college library is fully automated in all the aspects concerning issuing, return, searching, downloading and printing. The college library has **86,594 books** which have been **bar-coded** and are part of the fully computerized issuing and return system. The college also has OPAC catalogue facility which allows ready access to the bar-coded books.

The library has installed the **NETLIB software** which includes facilities such as administration, acquisition of books, cataloguing, circulation, membership facilities, article indexing, serials, bar-coding and importing of data.

\***Total no. of computers for public access:** The college library is equipped with 25 computers and their distribution is as follows:

- Library staff- 8 Desktops
- Teaching staff- 10 Desktops
- Students- 6 Desktops
- Differently- abled (blind) students- 1 Desktop

\* **Total no. of Printers for Public Access:** **Five printers** are installed in the library at various locations. The library also contains **two bar-coding printers** with readers and two receipt printers. A total of 7 printers are available in the library for various purposes.

\***Internet band width/ speed:** The College has a band width of **30mbps** provided by the University of Delhi. The college also has an additional internet bandwidth of 1 mbps from MTNL.

**\*Institutional Repository:** The library has a collection of syllabi and past year question papers of the University of Delhi for the undergraduate and post graduate courses. The University Calendar and governance of colleges are also kept in the library along with AC and EC minutes of the University of Delhi. The Swaminathan's rule books pertaining to various laws and policies of the government of India are also available. There are over 630 CDs of various books available in the library. A total of 35 CDs are also available for the Foundation Courses of the undergraduate courses.

**\*Content Management System for e-learning:** The College has appointed one computer-trained staff for the management of the entire e-learning system in the library.

**\*Participation in Resource Sharing Networks/Consortia (like INFLIBNET):** The College has INFLIBNET e-resource accessibility for all the students and teachers. The Delhi University (Central Library System) e-resource-online access provided by the Central Reference Library is also available for the students. The college library also provides photocopying facility.

4.2.5 **\*Average Number of Walk-ins-** The average number of walk-ins fluctuates between regular classes and the examination period. The average number of walk-ins ranges from 500-550 students per day. Random data is available which is signed and checked by the librarian.

**\* Average Number of Books Issued/Returned-** The average number of books issued/returned is 375-400 though the number fluctuates between vacations and days of examination and can fall to 165-120 per day.

**\* Ratio of Library Books:** The ratio is 1:24.38 which is obtained by dividing the total number of books by the total number of students. The library has **86,594 books** for a total of **3551 students**.

**\* Number of Books Added During the Last Three Years-** The total number of books added during the last three years was **11,182** including both textbooks and reference books.

**\* Average Number of Log-ins to OPAC-** Approximately 150-175 students per day.

**\* Average Number of Log-ins to e-resources-** Approximately 30-50 students and teachers login per day.

**\* Average Number of e-resources Downloaded/Printed-**

Approximately 50-100 e-resource articles or related material is downloaded or printed per day.

\* **Number of Information Literacy Trainings Organized-** The library staff extends regular support to the students for searching books and e-resources during working hours.

\* **Details of “weeding out” of Books and other Materials-**

On **14-01-2011** the college weeded out **19,481 books and 1,750 journals** that were **sixty years old** as well as mutilated and not required as per the changed syllabi of various courses. The process was completed after seeking approval from the Governing Body of the college. The teachers-in-charge of all the departments were also consulted.

#### **4.2.6 Give details of the specialized services provided by the library**

##### **Details of the Specialized Services Provided by the Library:**

- **Manuscripts-** The college does not require manuscripts for undergraduate courses. Neither have any of the teachers- in- charge placed a request for the purchase of any manuscripts.
- **Reference-** There are approximately **2,218 reference books** in the college library at the moment.
- **Reprography-** The college has reprographic facilities for the reproduction and duplication of documents and drawings such as scanners, printers, xerox machines, CD writers and academic softwares.
- **ILL (Inter Library Loan Service)-** The library does not avail of the Inter Library Loan Service as students already have access to other libraries in University of Delhi. The ILL facility is available to post graduate students and teachers. They can borrow books from the Central Reference Library, the Central Science Library and the Ratan Tata Library of the University of Delhi.
- **Information Deployment and Notification –** The library has a notice board and a complaint/ feedback box installed in the reading hall. The library makes use of the college website as well as email-ids for flashing information and notification for the teachers and students as per requirement. The arrival of new books is also displayed on separate rotating stands near the entrance of the library.



- **Download-** The facility of downloading the required academic material on all the twenty five computers is available in the library for both teachers and students.
- **Print-** The library has **five printers** and **one photocopy machine** installed for the students and teachers.
- **Reading List/ Bibliography Compilation-** The library has a manual catalogue facility for compiling reading lists and bibliography apart from the OPAC facility.
- **In-house/Remote Access to e-resources-** The library offered passwords to all the students and teachers to avail the **INFLIBNET online portal** with **one lac books** and **three thousand journals** with both in-house and remote access of e-resource facility.
- **User Orientation and Awareness-** The library staff extends every possible support to enhance the awareness of the students and teachers as per their academic requirements. The students are informed regularly regarding the new facilities made available in the library through notice board. A computer-trained assistant is deputed in the library to orient students towards e-learning.
- **Assistance in Searching Databases-** A dedicated staff member skilled in database access is deputed for the assistance of students and staff members during working hours in the library.
- **INFLIBNET/ IUC facilities-** The college library offers **INFLIBNET portal** (in-house and remote) access to all the students and teachers with individual passwords.

**4.2.7 Enumerate on the support provided by the library staff to the students and teachers of the college.**

The library staff consists of one Librarian, one Professional Assistant, nine Library Attendants, and three Contractual Library Attendants and it offers the following support to the students and teachers:

- a) Searching for reading material,
- b) Guiding through OPAC system,
- c) Personal assistance to differently-abled students,
- d) Segregation, issuing and return of books,
- e) Replacement of mutilated books, and
- f) Issuing of library cards and maintenance of records.

**4.2.8 What are the special facilities offered by the library to the visually/ physically challenged persons? Give details.**

The college offers the following support system to the visually/ physically challenged students:

- a) One Lex software for reading Braille literature,
- b) One Scanner kit and laptop for scanning Braille literature exclusively,
- c) Two nos. of Angel Recording System for hearing impaired students,
- d) Ten I-pods for visually challenged students,
- e) Two Braille kits for the visually challenged,
- f) 286 Braille books and 30 CD's of Braille Literature,
- g) 29 Tape Recorders for the visually challenged,
- h) OPAC feedback system, especially for physically challenged students,
- i) Physical support system in the form of two staff members to provide continuous assistance with all their needs in searching and obtaining books and other material, and
- j) Special cubicle for blind students with computer facility.
- k) Two library staff members, Mr. Ravi Kumar and Mr. Chander S. Meena, have attended the training programme for providing support system to physically challenged students, organised by the University of Delhi, to address the problems and arrange special facilities for the physically challenged.

**4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the library to collect feedback from the users? How is the feedback analyzed and used for further improvement of the library services?)**

The library is equipped with OPAC which has an inbuilt facility through which students submit their feedback on a regular basis. A Suggestion Box is also placed in the library through which students can give their suggestions.

The library committee analyzes the feedback provided by the students and considers their opinion about improving the functioning of the

library system and infrastructure. This exercise is done on a monthly basis and a record is maintained. Recently all the chairs and tables used by the students were replaced on the basis of the feedback given by them. Timings for issuing and returning books has been extended up to 4:00 pm on the basis of the students' feedback. Their suggestions were used even for positioning the CCTV cameras around the property counter of the library. The number of copies of newspapers was also doubled on the basis of their feedback and a number of certain books were exclusively purchased as requested by the students.

### 4.3 IT INFRASTRUCTURE

#### 4.3.1 Give details on the computing facility available (software and hardware) at the institution

**Number of computers with configuration (provide actual number with exact configuration with each available system)**

S. No	Details Of Desktop Computer	Qty	Remarks
1.	Acer/ Veriton M200 Series/ 2.60 gigahertz AMD Phenom II X4 810/ 2 GB RAM/ 320 HDD/LCD 19 Monitor /Windows 7 OS/Norton Antivirus	80	Comp Lab - 80
2	Acer/ Veriton WO#3025 Series/ Intel core 2 Duo 2.93 gigahertz / 2 GB RAM/ 320 HDD/LCD 19 Monitor /Windows 7 OS/Norton Antivirus	40	Principal Office – 02 Library – 10 Office – 03 Comp. Lab- 22 PIO Room - 03
3	HP/ Compaq Mini Tower/ DX2700/Intel Core 2 Duo, E6600, L2 Cache 4 MB FSB 1066MHz, Speed 2.40 GHz, 512MB, DDRII, 80GB HDD, 1.44MB FDD, DVD Combo, 15” TFT Monitor, USB Key Board & Mouse		Computer Lab.– 23 Office –04 Library-05 Principal Office-01
3	HP Compaq Intel core 2 duo 2 GB RAM, 250 GB HDD,DVD Writer TFT, USB Key Board & Mouse	2	Office - 02
4	Lenovo Intel processor 2 GB Ram , 500 GB HDD, WIFI , DVD ROM	35	Office- 5 Comp. Lab – 20 Library - 10
5	ACER , HCL BUSY bee	4	Biochem – 1 Chem – 01 Phy - 02
6	HCL ,Intel Processor 2.21 ,1 GB RAM,500 GB	1	Botany-1
7	HP, Intel Processor, RAM, HDD, DVD ROM	1	Biochem-1
8	HP P6000 Series	4	Physic-1 Library-3

Criterion IV: Infrastructure and Learning Resources

S.No	Server Configuration	Qty	Remarks
1.	Acer Server/ [Intel® Xeon(R) CPU E-5620 @ 2.40 GHz (2 Processor) with windows 2008(Server) R2 installed	2	Server Room
2.	IBM , Pentium , 2.93 GHZ Processor , 1 GB RAM, 250 GB HDD	1	Server Room
	<b>TOTAL DESKTOP</b>	<b>175</b>	
	<b>TOTAL SERVERS</b>	<b>3</b>	
S.No	Laptop Configuration	Qty	Remarks
1.	HP/Intel i5 processor, 4gb Ram, 500GB HD, DVD Writer, 14" Screen, Dual Boot (Windows 7 Professional 64bit and Suse Linux)	25	Issued to Teachers-in-Charge
2.	HP/ Probook 445G1, 8GB RAM,320 GB HDD AMD Elite A65350M 2.9 GHz Processor; Ubuntu 12	962	Issued to Students-791 Store- 131
3	HP/ Probook 445G1, 8GB RAM, 500 GB HDD, AMD Elite A65350M 2.9 GHz Processor; Ubuntu 12	26	Teachers-21
4	ACER	2+1 (BBE)	Issued to Teachers-in-Charge
Computer-student ratio	<b>1:3.02 (Total Computers = 1213 and Total Students= 3666)</b>		
Stand alone facility	NIL The entire college building is Wi-Fi enabled.		
LAN facility	The college has LAN facility which interconnects the computer systems of four laboratories. The administration office of the college is connected with the computer in the Principal's room.		
Wifi facility	This facility is made available through 12 Access Points (11g) centrally managed by a Router. (Zonal Director). - The campus is fully-equipped with Wi-Fi facility round the clock and it can be accessed by the students and teachers at good speed in locations all over the college.		
Licensed software	Windows Server 2008(R2) ( <b>provided by DU</b> ), Windows 7 Upgrade Version( <b>provided by DU</b> ), Windows 7 Pro, Microsoft Office 2010, Acrobat Reader 9.0 (Full Version), Adobe CS5 (Premium), Quick Heal Anti-Virus (10 User), Mathematica 9, Tally Gold Multiuser Ed. (9.1), JAWS Pro talking Software for Blinds, GIS MapInfo		
Number of nodes/computers with Internet facility	Since all the computers are interconnected through Wi-Fi, nodes are not required as such.		
Any other	The college has a total of :- Printers : <b>25</b>		

	Scanners: <b>2</b> LCD Multimedia Projectors: <b>30</b> UPS (2,5 & 10KVA): <b>2, 1,6</b> Canon Xerox Machines with colour printing for A3 and A4 size and scanning facility : <b>2</b>
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**The Summary of the Computers available in the college:**

Total Nos. of Laptops (for Students) = 962

Total Nos. of Laptops for **E.O.C (Equal Opportunity Cell)** Students = 22

Total Nos. of Laptops (for Multimedia Projectors) = 28

Total Nos. of Laptops (for Teachers) = 26

**Total number of Laptops in the college = 1038**

**Total number of Desktops in the college = 175**

**Gross Total (Laptops and Desktops both) = 1213.**

**4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off campus.**

All teachers-in-charge of various departments have been provided with laptops. Out of the total of 962 laptops, 771 were issued to the students for the period of one academic year. In addition, 42 laptops were issued to teachers for using the projectors in the classrooms. The staff room of the college is equipped with 10 computers (with internet connection). The college library also provides separate cubicles with computers and internet facility for the students and teachers. The administrative block of the college is fully computerized and equipped with scanners, printers and internet facilities.

The college has four computer laboratories, fully equipped with modern infrastructure and technology. They are available to students and teachers according to their scheduled timetable.

Out of the total of 962 Laptops for Students and 76 for Teachers (Make: HP, Model: Probook 445G1, 8GB RAM/ AMD Elite A65350M 2.9 GHz Processor, Specs: Ubuntu 12/), 771 have been provided to first year students and 16 (with AMD Elite A10 5750M 2.56 GHz Processor) to the faculty. There are a total of 175 Desktop Computers available in various departments of the college.

**4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?**

Every department of the college has its own laboratory and independent ICT infrastructure. The college also has four computer laboratories and a computer hub within the library. A separate

computer room has also been provided to the teaching staff. ICT Infrastructure is upgraded in the departments as per the needs of the curriculum.

The college boasts of state of the art computer centers equipped with servers, printers, desktop machines, laptops, LCD projectors, and scanners of latest configuration. Operations in the college library as well as administrative office are automated. Departments are asked to submit their requirements for new ICT equipment. This is reviewed by the college purchase committee on a regular basis so as to make the required purchases.

The college has transformed a number of classrooms into e-classrooms equipped with laptops and projectors. The college proposes to put up electronic notice boards to make information more accessible through the internet so that students can stay updated about all the events, programs, timetables and schedules of the college. The college also proposes to provide access to the library catalogue through the internet whereby students and teachers would have easy access to information regarding the books available in the library.

**4.3.4 Provide details on the provisions made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution? (Year wise for the last four years)**

The details of the **annual budget** for procurement, upgrading, deployment and maintenance of the **computers** and their accessories in the institution is as follows:

S. No.	Year	Annual Budget
1.	2010-11	Rs. 294,050
2.	2011-12	Rs. 1,101,825
3.	2012-13	Rs. 3,541,333
4.	2013-14	Rs. 741, 540

**4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer aided teaching/ learning materials by its staff and students?**

The institution ensures an extensive use of ICT resources by providing an adequate access to computers and internet to its staff and students. Laptops are distributed to the first year students to promote computer-aided learning. Teachers and students are encouraged to use LCD projectors for their presentations and lectures. The library also provides e-resources facility (e-journal/e-books databases).

**4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to online teaching-learning resources, independent learning, ICT enabled classrooms/ learning spaces etc.) by the institution place the student at the centre of the teaching learning process and render the role of the facilitator for the teacher.**

Learning activities revolve around class-room teaching and evaluation in the form of assignments, class-tests, project reports and presentations. These are supplemented by the co-curricular activities such as seminars, workshops, conferences, summer training, industrial projects, quizzes, field excursions and competitions organized by the various subject societies.

There are many ways in which teaching – learning resources have been deployed and made accessible for use by the students to make them independent learners. The Institute of Life Long Learning (ILLL), University of Delhi, has developed courseware for different courses which is available for the students (free of cost) through the website. The University has also uploaded course material developed by the Faculty of Arts and Social Sciences for some of the papers of undergraduate programmes on its website. In addition to these, the Computer Hub are the learning spaces through which teachers facilitate student-centered learning. Teachers too are encouraged and facilitated to use ICT equipment. Both the faculty and students have been provided with laptops for a better teaching-learning process.

Students make use of GPS satellite images, topographical sheets, cameras, and census data during study tours and excursions where they are placed at the center of the teaching-learning process. The department of Mathematics teaches theoretical components of the curriculum by depicting and elucidating through Mathematica software designed for this purpose. The goal is to make the students as self-reflexive and self-analyzing as possible.

The e-classroom, with the aid of multi-media projectors, provides more comprehensive information from different sources. This ensures better elucidation of the matter in the classroom. For example, students are asked to prepare project reports on various social issues. They use their laptops (with internet) for this exercise and this promotes independent learning with as little interference from the teachers as possible. This encourages the students to think independently about relevant social issues and to make use of the technology made available to them by the institution.

**4.3.7 Does the institution avail of the national knowledge network connectivity directly or through the affiliating university? If so, what are the services availed of?**

Yes, the College avails the National Knowledge Network Connectivity through the parent University. There are various services that are being availed using NKN backbone, namely:

- Delhi University Wide Area Network ( WAN )
- College Local Area Network ( LAN )
- Access to Scholarly Content of UGC-Infonet Digital Library Consortium
- Local Resource Sharing Services of Delhi University Library System
- Internet Services through dedicated Fibre Optic Network presently with a minimum of 40 Mbps extended upto 100 mbps.
- Video Conferencing and Virtual class room activities through the University developed application called Virtual Learning Environment (VLE).

**4.4 MAINTENANCE OF CAMPUS FACILITIES**

**4.4.1 How does the institution ensure optimum allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during the last four years)?**

The infrastructure requirements of each department are invited before the beginning of an academic session. Furthermore, following committees are constituted by the Staff Council to make necessary purchases for the maintenance and upkeep of the building infrastructure:

- a) **General Purchase Committee-** The Principal marks the different request letters from the departments to the convener of the General Purchase Committee. The convener of the GPC makes purchases as per the General Financial Rules laid down by the Government of India.
- b) **Development Committee-** The Development Committee, in consultation with the caretaker, carries out the required civil works



in the college such as whitewashing, constructing and other repair works.

- c) **Building Committee-** The Building Committee makes the necessary arrangements for adding new academic infrastructure in the college as per the demand. The Building Committee is constituted by the Governing Body of the college.
- d) **Laboratory Equipment Purchases by Teachers-in-charge -** The consumable and non-consumable instruments and items for use in the laboratories are purchased by the teachers- in charge after following due process. This is done to ensure optimal utilization of the funds allocated to the respective departments each academic year.

**The details of the statement of actual expenditure during the last four years are provided below:**

S.No.	Heads	2010-11	2011-12	2012-13	2013-14
A	Building	9,783,653.00	7,896,492.00	7,749,917.00	827,600.00
B	Furniture	1,477,864.00	1,791,941.00	1,275,997.00	432,241.00
C	Equipment	1,958,935.00	2,346,147.00	1,222,038.00	1,357,156.00
D	Computers	294,050.00	1,101,825.00	3,541,333.00	741,540.00

#### **4.4.2 What are the institutional mechanisms for the maintenance and upkeep of the infrastructure, facilities and equipment of the college?**

The Principal of the college, in consultation with members of the Building Committee, Development Committee, the General Purchase Committee and the teachers- in-charge, identifies the problems and then allocates the assignments for the maintenance and upkeep of the infrastructure. The necessary purchases and repairs are done by the concerned committees on the basis of the requirement. The caretaker of the college looks after the cleanliness and hygiene, sanitation, water-supply, electricity, security and stationery for the college and informs the Principal about the needs regarding the maintenance and purchases of infrastructure. The above stated procedure regarding purchases, maintenance and repair is carried out only after seeking approval from the Governing Body of the college.

**4.4.3 How and with what frequency does the institute take up the calibration and other precision measures for the equipment/instruments?**

The Science departments calibrate, upgrade and repair the equipment in their respective laboratories depending on the varying usage of particular instruments. Outdated instruments are disposed off after following the proper procedure. The softwares are changed or upgraded as per the requirement of the syllabi. The Principal, along with the concerned teachers- in-charge, inspects the working conditions of the laboratories and if any calibrations are required, gives the necessary directions towards their correction.

**4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?**

Several steps were taken by the college after the addition of modern technological instruments to meet the requirement of the curriculum such as:

- a) Locating the **server** in a separate cubicle so as to ensure safety of the students.
- b) Fixing the **UPS** and batteries outside the classrooms mitigating the chances of fire-hazard.
- c) Installation of an environment-friendly sound-proof 100kW generator for uninterrupted supply of electricity in the college.
- d) Additional **refrigerators** were installed in the laboratories of Biochemistry, Botany, Zoology and Chemistry departments for storage and preservations of chemicals.
- e) A separate overhead 1000 ltr **water tank** was installed over the science block to ensure uninterrupted water supply.
- f) The lawn enclosed in the area of Principal's bungalow was developed for planting and rearing of **medicinal** and other plants.
- g) **Fire extinguishers** and sand buckets are installed as safety and security measures in all the laboratories and offices in the college.

## **CRITERION V: STUDENT SUPPORT AND PROGRESSION**

### **5.1 STUDENT MENTORING AND SUPPORT**

#### **5.1.1 Does the institution publish its updated prospectus/handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?**

- The college publishes its updated prospectus annually which is also uploaded on the college website.
- The prospectus provides a detailed account of the Infrastructure, Admission Schedule, Academic Calendar, Rules and Procedures of Admission, Number of Seats available in each course, Fee Structure, Examination/Evaluation Process, Scholarships, Student Assistance, College Rules and Ordinances of Delhi University.
- It also states policies regarding Discipline, Anti-ragging and Sexual Harassment.
- The prospectus also delineates the profiles of faculty members, courses, committees and societies working in the college towards a holistic development of the students.
- It also highlights the rich and glorious past of the college.
- Policies mentioned in the prospectus are strictly adhered to throughout the year.
- The administration and faculty are committed to work, through various societies and committees, in accordance with the information provided in the prospectus to make the college a centre of academic excellence.

#### **5.1.2 Specify the type, number and amount of institutional scholarships /free-ships given to the students during the last four years and whether the financial aid was available and disbursed on time?**

The college has a fee concession committee comprising faculty members. Applications are invited from students who seek concession in fee. The committee recommends and ensures timely disbursement of fee concession to the deserving candidates after following procedures related to scrutinizing.

Two categories (based on the annual family income) were considered to grant fee concession to students during the year 2013-14:

- Category 1- Financial assistance of Rs.3,500/- per student
- Category 2- Financial assistance of Rs.2,500/- per student.

Fee Concession Details for the last four years:

S. No.	Financial Year	No. of Students	Total Amount Disbursed
1.	2010-11	27	Rs.34,750/-
2.	2011-12	28	Rs.86,000/-
3.	2012-13	80	Rs.1,80,500/-
4.	2013-14	180	Rs.4,69,000/-

Other than concession in fee, if required, the college also sponsors full fee of extremely poor and meritorious students through funds generated by willing faculty members.

#### **Merit Scholarship**

The college awards Merit Scholarships of the value of Rs.100/- per month payable in lump sum, with an exemption from tuition fee for the full session, and a merit certificate to the first class first position holder in the college in the 1st year annual exams.

#### **P.C. Ganguly Memorial Scholarship**

Students of the Department of Economics at Shivaji College are felicitated with the annual merit-cum-means scholarships under P.C. Ganguly Memorial Scholarship. Every year, a sum of Rs.3000/- is awarded to one student of Economics from each year of B.A. (Hons.).

#### **Sultan Chand, Dropadi Devi Memorial Scholarship**

The given scholarship of Rs.3500/- is awarded for a semester to the student of B.Com (Hons.) 3rd semester, who secures the highest percentage in aggregate in the second semester University examinations, in the first attempt. In case of more than one student securing equal marks the value of the scholarship shall be divided equally.

#### **Dr. Usha Aggarwal Tejaswi/Tejaswini Scholarship**

The scholarship is awarded to the students of B.Com. (Hons.) 2nd Year & 3rd Year each, who secure the highest percentage of marks (above 70% Aggregate) in the college in the first attempt.

#### **Satya Pal Bansal Memorial Scholarship**

A monthly scholarship of Rs.1000/- is awarded to the best student on the basis of his/her examination results in the 1st year.

#### **Kusum Vasal Memorial gold medal**

A gold medal would be awarded to the topper of B.Sc.(Hons.) Physics, 3rd year starting from 2014-15.

**Dr. S.K. Nayyar memorial scholarship**

Two prizes of Rs12,000/- and Rs8,000/- would be awarded to top two students of B.Sc.(H) Zoology in the penultimate year of the degree course starting from 2014-15.

**Scholarship to SC/ST Students by the Directorate of Education**

These scholarships are awarded by the Directorate of Education, Government of Delhi, to bonafide Scheduled Caste/Scheduled Tribe students belonging to Delhi, on receipt of completed applications submitted through the college.

**All India Entrance Scholarship by the University of Delhi**

Delhi University holds a competitive examination in the month of October each year for the award of All India Entrance Scholarships of Rs.250/- per month each, tenable for three years. Any student from Honours courses with a minimum aggregate of 55% marks may apply along with the examination fee of Rs.50/-.

**Merit/Post-Matriculation Scholarship for SC/ST/OBC**

The college offers the following two scholarships to SC/ST/OBC students through the funds provided by the Directorate of Education, Government of Delhi:

**Merit Scholarship**

This scholarship is awarded to all SC/ST/OBC students who secure more than 60% marks in aggregate in annual exams (provided that they apply).

**Post- Matriculation Scholarship**

This scholarship is awarded to all SC/ST/OBC students whose annual family income is below 1 lakh (provided that they apply).

**Vice Chancellor's Student Fund**

This fund provides financial assistance to those students in the college who come from the economically weaker section.

For numbers of Merit/ Post-Matriculation scholarships and Vice Chancellor's Students Fund disbursed, refer to Appendix 5.1.

Students are timely informed about these scholarships along with the last date of applying. The notices are prominently displayed on notice boards and college website. All financial assistances, in the form of scholarships and free-ships were disbursed on time.

**5.1.3 What percentage of students receives financial assistance from state government, central government and other national agencies?**

Financial assistance received from the Directorate of education, Delhi Government was provided to approximately 10% students from economically weaker section of the society comprising of the SC/ST/OBC/Minorities/Differently-abled.

**5.1.4 What are the specific support services/facilities available for**

**Students from SC/ST/OBC/PWD and economically weaker sections**

- An appropriate relaxation in cut-off percentage is given to SC/ST/OBC students during the time of admissions to various courses.
- The college provides financial assistance in the form of scholarships and fee concessions for students from SC, ST, OBC backgrounds and economically weaker sections.
- In 2010-12, funds were received under merged scheme of UGC (XI plan). These were used to hold remedial coaching, coaching for NET/SET and civil services entrance exams for SC/ST/OBC and minorities.

**Students with physical disabilities**

- The college has an (EOC) Equal Opportunity Cell for differently-abled students.
- This cell makes every possible effort to make the college friendly for **Persons with Disability** and ensures that every required infrastructural facility is provided.
- The Unit organizes programmes and regular meetings in the college to bring out and enhance the talent of these students and solve their problems.
- There is a separate room with computers, scanner and printer in the college for PwD students.
- Laptops with MBDA Software are available in the College Library for visually challenged students.
- These students are exempted from paying annual fee.

#### Criterion V: Student Support and Progression

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- 286 Braille books and CDs on various subjects are available in the college library.
- Students can also access i-pods (10), tape recorders (29) and photocopy facility in the college library.
- The college has also provided visually handicapped students with the Angel Recording System.
- The college library is also equipped with software LEX that can scan a book and convert it into Braille and vice-versa.
- There is a special washroom for disabled students at ground floor.
- Ramps have also been constructed at strategic locations in the college building.
- Faculty members put in larger efforts and take extra classes to make these students capable in competing with other students.
- A singing competition was organized for differently-abled students in the annual cultural festival (Vibrations 2014) to promote talent among such students.
- Manual help is also provided to students with disabilities, as and when required.

#### **Overseas students**

- Nominees of Nepal government/ Royal government of Bhutan are given a maximum relaxation of 5% in cut-off marks for admission to various courses.
- The college conducts various activities to interact with these students on a regular basis.
- Admissions are done as per the recommendations of the Dean, Foreign students, University of Delhi.

The Number of overseas students in the last four years is as follows:

S. No.	Year	No. of Overseas Students
1.	2010-2011	8
2.	2011-2012	17
3.	2012-2013	13
4.	2013-2014	13

**Students to participate in various competitions/National and International**

- The college provides financial assistance to students who participate in various competitions at the National Level and ensures that their travel and lodging expenses are taken care of.
- Students who secure outstanding positions are felicitated on the college annual day.
- College has various cultural societies like Art society (VIBGYOR), Photography (Shutterbugs), Music (Reverb), Nukkad Natak (Vayam), Dance (Footloose), Fashion (Bizarre) and Debating Society (Dictum). All societies enthusiastically participate in many inter-college and inter-university competitions across India.
- The college also engages trainers for various activities such as dance, music, nukkad natak etc. to groom students.
- The college encourages its students to participate in various sports and games accessible in the college. Teaching and training through qualified personnel is provided in various games and sports like Cricket, Football, Basketball, Volleyball, Chess, Softball, Baseball, Table tennis, Athletics etc.
- Every department has its own society (**Websters:** Computer-Science, **Oyster:** Zoology, **Sanskrit Parishad:** Sanskrit, **The Democrats:** Political Science, **Litopia:** English, **Chaperone :** Biochemistry, **Shivalik:** Geography, **Fragrance:** Botany, **Infinity:** Mathematics, **Rastantram:** Chemistry, **Waves:** Physics, **Kaizen:** Commerce, **Epitome:** Economics, **Itihaas :** History, **Sahitya Sangam:** Hindi) which provides a competitive platform for a stimulated exchange of knowledge, skills and creative aptitude among students.
- The departmental societies organize festivals and other academic events to encourage students to think beyond the curriculum. Students are also motivated to participate in various inter-college departmental festivals.

**Medical assistance to students: health center, health insurance etc.**

- The college has a WUS Health centre.
- This centre is equipped with diagnostic laboratory and pharmacy which provides medical facilities to the students of our college and other neighboring DU colleges.



- The college provides life insurance cover of Rs.1,00,000 /- to all the students at a nominal fee of Rs.100/- per year.
- A medical card is made available for the students at a nominal fee of Rs.120/- per annum which entitles them to use all the facilities available in the WUS Health centre.

Regular health camps are organized in the college for the benefit of both students and staff. Cancer Awareness Programme was organized in collaboration with Cipla on 15<sup>th</sup> February 2013. The Women's Development Cell at Shivaji College organized a **Medical Awareness programme** on 26<sup>th</sup> August 2013, and an **Organ Donation Awareness Campaign** on 4<sup>th</sup>-5<sup>th</sup> September 2013. Blood Donation Camps were organized in college 22<sup>nd</sup> March 2011, 11<sup>th</sup> October 2012 and 4<sup>th</sup>-5<sup>th</sup> September 2013.

**Skill development (spoken English, computer literacy, etc.)**

- Workshops and seminars are conducted on a regular basis to enhance communication skills and personality development of the students.
- The Department of English offered an **English Language Proficiency Course** during the academic session August-November 2012. The course aimed at assisting students with poor spoken/written skills in English language by approaching the language in a simple and effective manner. This was achieved through conducting activities and tasks like creative writing, role playing, recitation, dialogue construction, reading and group discussions. No fee was charged for this course.
- Placement cell of the college also trains students in various personality development activities. For instance, a session on the **Art of CV writing** was organized in 2013.
- College has 4 well equipped computer labs with qualified lab staff and attendants. Students with no prior exposure to computers have benefited by visiting these labs regularly and learning basic computer skills. Students are assisted by the faculty members and lab staff, as and when required.
- An ICT workshop titled **True hacking** was organized for students by the Department of Computer Science in 2014.
- The college offers basic computer literacy (CSAT-101, CSAT-201) papers to all first year science students.

- Workshops and seminars are conducted on a regular basis to enhance communication skills and personality development of the students. The Department of Commerce organized a seminar entitled **Getting Familiar with Financial Markets** in 2012. The Department of Computer Science organized talks on **How to get attractive package from IT Companies** in 2014, and **How to excel your programming skills for topmost IT Companies as well as Research Development sector** in 2015.
- Motivational talks on the topics **Positive and Positive is the only key to success** and **Role of the Youth in Building a Nation** were organized by the Students' Advisory committee in 2014.

#### **Support for “slow learners”**

- Students are assisted during tutorial sessions so that they are able to improve their problem solving skills. This is done in order to bring them at par with the other students.
- Personal, academic and socio-psychological counseling.
- Practice tests.
- Provision of simple but standard lecture notes/course material.
- Revision of syllabus, both theory and practical.
- Special attention is given to such students by the faculty. Extra time beyond the classroom is devoted on such students.

#### **Exposures of students to other institutions of higher learning/ corporate/business house etc.**

The students are encouraged to attend summer trainings, workshops and seminars to gain exposure and experience. The college organizes regular educational/industrial/corporate trips for the students. For details of the same, refer to Appendix 1.1.

#### **Publication of student magazine**

The college magazine *Shivraj* is published annually and it provides an excellent platform to students and gives them an opportunity to showcase their writing abilities. The editorial board consists of faculty members and students. Apart from this, the graphic designing and formatting of the magazine is taken care of by the students themselves.

**5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills among the students and the impact of the efforts.**

Following Seminars, workshops and lectures were organized by Shivaji College to facilitate entrepreneurial skills:

S. No.	Seminar/workshop/lecture	Date
1	Balanced Economic Development	9 <sup>th</sup> -10 <sup>th</sup> March 2011
2	Consumer Awareness	9 <sup>th</sup> -10 <sup>th</sup> March 2011
3	What your CEO expects of you	9 <sup>th</sup> -10 <sup>th</sup> March 2011
4.	Entrepreneurship Summit organized by BBE department	20 <sup>th</sup> March 2012
5.	Recent Developments in Global Economy: Impact on Developing Countries	18 <sup>th</sup> -19 <sup>th</sup> March 2013
6.	Career Option for Students of Mathematics in Actuarial Science	25 <sup>th</sup> February 2013
7.	Stock Market	1 <sup>st</sup> November 2014
8.	Dare to dream: young entrepreneurs	9 <sup>th</sup> March 2015

**Impact of these efforts:** Our students have been employed in the public and private sector. Skill enhancement opportunities provided by the college paved their way for higher education in prestigious institutes and more job opportunities in India & abroad.

**5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, quiz competitions, debate and discussions, cultural activities etc.**

- **Additional academic support, flexibility in examinations**
- **Special dietary requirements, sports uniform and materials**
- **Any other**
- Sports, cultural, NSS committees comprising faculty members are constituted in the staff council.
- To promote participation of students in extra-curricular and co-curricular activities, these committees chalk out the policies and strategies.
- Students are provided coaching and training in various cultural activities and games.
- The college has various cultural societies like Art, Photography, Music, Nukkad Natak, Dance, Fashion and Debating Society.

- All cultural societies enthusiastically participate in many inter-college and inter-university competitions across India and are provided travel and lodging allowance for the same.
- The college gives a platform in the form of its annual cultural festival **Vibrations** to encourage student participation from colleges across Delhi University and other adjoining universities in Delhi NCR region. Various colleges compete in events like Dance, Singing Competition, Street Play, Fashion Show, Battle of the Bands, Debate, Quiz, Rangoli Making and T-Shirt Painting.
- Every year, at the beginning of the session each society conducts auditions to incorporate new talented students as members.

**Additional Academic Support:**

- Every year, a large number of students are admitted to the various courses being taught in the college under sports quota through games like football, cricket, basketball, volleyball, chess, table-tennis and athletics.
- In each department, up to 5% of seats are reserved for students seeking admission under sports quota.
- The students who participate in various extra-curricular activities like NSS, NCC, sports and literary/cultural competitions are given extra time by the faculty to compensate for missed classes.
- Such students are allowed flexibility in deadlines for submission of assignments and internal assessment schedules.
- These students are given attendance benefits as per university rules.

**Flexibility in Examinations:** Students who excel in sports and deliver an outstanding performance in extra-curricular activities and bring laurels for college are given attendance benefits as per university rules.

**Special Dietary Requirements:** NSS and NCC units provide Rs.18 per student per practice session for 30-90 days and Sports Unit provides Rs.30 per student per practice session for 30-60 days, to provide them with a healthy diet.

**Sports Uniform and Materials:**

- Kit and uniform are provided to NCC, NSS volunteers and the students representing the college in sports competitions at various levels.

- Play fields and playing equipment are made available to students for games such as football, cricket, basketball, volleyball, chess, table-tennis and athletics.
- Cultural society provides instruments and dresses to students who represent the college in various cultural events.

**5.1.7 Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central /State services, Defence, Civil Services, etc.**

The faculty members help the students to prepare for these examinations. In 2010-12, funds were received under merged scheme of UGC (XI plan). These were used to hold coaching for NET/SET and civil services entrance exams for SC/ST/OBC and minorities.

**5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)**

**Academic Counseling:** The Admission Committee constitutes a counseling team to help the students regarding the choice of stream and subjects during the admission process. Doubts and queries related to admission procedure are also resolved.

**Personal Counseling:** Teachers are available for personal counseling of the students whenever required. Even the Principal of the college, whenever possible, looks into the problems of students.

**Psycho-social Counseling:** The Women Development Cell invites resource persons from various fields for professional as well as psychological counseling of the students. The college has also arranged a lady counselor for two days in a week to deal with socio-psychological problems of the students.

**Career Counselling:**

- The college has an active Placement Cell to ensure that students get adequate exposure and face the challenges which surround the current employment scenario.
- Various departments organize seminars and talks by eminent personalities from respective fields of knowledge to expose students to the skills required for their successful employment.

**5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).**

Yes, the college has a structured mechanism for career guidance and placement of its students. A placement committee is constituted in the staff council. The committee is not only concerned with the placement of students but also organizes various developmental activities that help in personality grooming, and provides them platforms to express themselves and enhance their soft skills (for more details, refer to Appendix 5.2).

At the onset of the session, the committee not only coordinates the registration of students to the Central Placement Committee of Delhi University but also registers them online at the College website. This enables the students to get placements in various sectors (for details of the same, refer to Appendix 5.2).

**5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.**

- Yes, the college has a Grievance Redressal Cell for the students.
- The students are made aware of this Cell right at the commencement of the academic session through prospectus, college website and Orientation programme.
- Students are encouraged to report their grievances in a bold and open manner before the committees.
- A Complaint Box has been installed in the campus by the Delhi Police.
- The grievances are addressed by the Principal and the members of the committee.

**5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?**

- The college has a **College Complaints Committee against Sexual Harassment**. The Committee comprises of two teachers, two non-teaching staff, three student representatives and two co-opted members from outside the college with known contribution to

women's issues, as per Delhi University ordinance XV(D). The committee looks after complaints of Sexual Harassment cases.

- The college prospectus contains the Delhi University Ordinance related to the matter of sexual harassment. It helps in creating awareness regarding sexual and verbal harassment and its related repercussions on the academic life of a student.

Apart from this, Women Development Cell of the college organizes **Self-defense workshops** every year. A conference, **Celebrating Womanhood**, was organized by the cell at India International Centre in 2014. A book *Anujivami: I survive* was released in this conference, a tribute to the undying spirit and emotional resilience of women.

**5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?**

- Yes, the college has an Anti-Ragging Committee formed in the Staff Council comprising of faculty members, the convener of Student Advisory Committee, NCC, NSS and sports in-charge, as per Delhi University ordinance XV(C).
- The committee undertakes the task of counseling students and registers complaints related to ragging (if any).
- Students are apprised of the functioning of this committee on the orientation day.
- The names and phone numbers of the committee members are displayed on a board in the college and are also available on college website.

The college takes pride in the fact that no issue has been reported so far relating to ragging.

**5.1.13 Enumerate the welfare schemes made available to students by the institution.**

The following welfare schemes are available to students:

**Academics:**

- Remedial classes, Career counseling, and Spoken English Classes are organized from time to time.
- The college ensures timely distribution of laptops and Wi-Fi passwords to the students so that they are able to incorporate the use of technology while learning.

- College library has a total of 86,594 books related to diverse disciplines and subjects with 2762 books added during the current session. The library subscribes to periodicals, popular magazines (28), encyclopaedia and newspapers (28).
- The college has installed state-of-the-art technology and equipment in laboratories.
- The college has a fee concession committee comprising of faculty members which recommends and ensures timely implementation of fee concession scheme to the deserving candidates after following procedures related to scrutinizing.
- Bus and railway travel concession is provided to students.
- The college has two photocopying machines in the campus, one in the library and another near the front gate.

**Cultural/sports:**

- The college encourages students to participate in intra/inter-college cultural and sports competitions.
- Cultural committee provides musical instruments and dresses to students who represent the college in various cultural events.
- The college gives a platform in the form of its annual cultural festival **Vibrations** to encourage student participation from colleges across Delhi University and other universities. Various colleges compete in events like Dance, Music, Street Play, Fashion Show, Battle of the Bands, Debate, Quiz, Rangoli Making, Photography and Painting Competition.
- Kits and uniforms are provided to NCC, NSS volunteers and the students representing the college in sports competitions at various levels.
- Playground and sports equipment are made available to students for games such as football, cricket, basketball, volleyball, chess, table-tennis and athletics.

**Health:**

- The college provides an insurance cover of Rs.1,00,000 /- to all the students at a nominal fee of Rs.100/- per year.
- A medical card is made available for the students at a nominal fee of Rs.120/- per annum, which entitles them the use of all the facilities available in the WUS Health centre.



**Women Development Cell:**

This cell organizes events which create awareness regarding socio-cultural, political and biological complexities. Issues such as gender equity, culture, nature of the feminine and the role played by social forces in shaping one's mind and attitude are opened for critical, thought provoking debates.

**Infrastructure:**

- Canteen
- Girls' Common Room
- In-house banking facility
- WUS Health Centre
- Two photocopying machines in college, one in the library and another near the front gate
- One of the largest sports grounds in University of Delhi

Camps for making new Aadhar Cards and Voter Identity Cards for students were held in 2013 and 2014.

**5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?**

Yes, the institution has an Alumni Association. Alumni members often help the placement cell of the college to connect with various companies like Gethired, iData Insights HR and Cs Insurance Brokers Limited. Alumni members of previous cultural committees, like *Nukkad Natak*, keep motivating and guiding the students of current committees.

**5.2 STUDENT PROGRESSION**

**5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.**

<b>Student progression</b>	<b>%</b>
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-

Employed Campus selection Other than Campus Selection	Refer to Appendix 5.2
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It is difficult to furnish the exact data as the required information is not provided by the students who have graduated from the college.

**5.2.2 Provide details of the programme-wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.**

For the programme-wise pass percentage and comparison of the overall pass percentage of the institution with that of the previous performance of the colleges of the affiliating university within the district during the last four years, refer to Appendices 2.7-2.11.

**5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?**

- Every department of the college organizes its annual academic events like seminars, talks and paper presentations giving them an exposure to the scope, broad dimensions and future prospects in their respective fields. This also assists in promoting research at college level. The Department of Commerce organized a seminar titled **Getting Familiar with Financial Markets** in 2012. The Department of Mathematics organized talks on career options for students of mathematics in 2013. The Department of Computer Science organized talks on **How to get attractive package from IT Companies** in 2014 and **How to excel your programming skills for topmost IT Companies as well as Research Development sector** in 2015.
- The college has an active placement cell where students register themselves for securing employment. The cell also trains students in various personality development activities. For instance, a session on the **Art of CV writing** was organized in 2013. (For details of activities and recruitments, refer to Appendix 5.2).
- The college organizes regular educational/industrial/corporate trips for the students. For details of the same, refer to Appendix 1.1.

**5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out.**

Tutorials are scheduled for students who are at risk of failure and drop out so that they become confident and are at par with others. Personal, academic and social counselling, provision of simple but standard lecture notes/course material, revision of syllabi, both theory and practical, extra time beyond the classroom are provided to such students.

**5.3 STUDENT PARTICIPATION AND ACTIVITIES**

**5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.**

**Sports and games:**

- The college offers sports facilities to students for playing Cricket, Football, Volleyball, Basketball, Chess, Table-Tennis and Athletics.
- The college has one of the biggest sports grounds in Delhi University. Moreover, students also participate in inter-university tournaments.
- Teaching and training through qualified personnel is provided in various games and sports like Cricket, Football, Basketball, Volleyball, Chess, Softball, Baseball, Table Tennis, Athletics etc.
- The college provides them uniforms, playing equipment, play sports, diet and benefit of attendance for missed classes as per University rules.
- Students who win positions in various tournaments are felicitated on the college Annual Day.

**Cultural and Extra-curricular activities:**

At the beginning of the academic session, the college organizes Orientation Day and a Freshers' party for the newly admitted students. Besides that, the students' society of each department organizes its Freshers' party.

**Cultural activities:**

- The college ensures that adequate attention is paid to extra-curricular activities so that students are able to enhance their talent.
- The annual festival of the college, **Vibrations**, is one such platform which encourages student participation from colleges across Delhi

University and other adjoining universities in Delhi NCR region. Various colleges compete in events like Dance, Singing Competition, Street Play, Fashion Show, Battle of the Bands, Debate, Quiz, Rangoli Making and T-Shirt Painting.

- The college organizes cultural programs in collaboration with Spic Macay to enlighten students about Indian classical music and art.

#### N.C.C.

- The N.C.C. Unit at Shivaji College is a full-fledged community of motivated and trained youth that exhibits leadership qualities.
- The Boy's NCC Unit at the college is attached to the 2nd Delhi Battalion, New Delhi.
- The Girl's NCC Unit comes under 7 Delhi Girls Battalion, Kirti Nagar, New Delhi.
- The wings provide several opportunities to participate in prestigious camps like Republic Day Camp, Thal Sainik Camp, All India Adventure Trekking Camp, National Integration Camp, Combined Annual Training Camp, Annual Training Camp, Adventure Camp, Army Attachment Camp and All India G. V. Mavalankar Shooting Championship etc.
- Our cadets participate in various social welfare programs like blood donation camps, the pulse polio programme, the tree plantation drive and the environmental awareness rally.

For the participations/achievements of N.C.C. students, refer to Appendix 5.3.

#### N.S.S.

- The NSS Unit of Shivaji College is committed to the cause of social uplift. And in this pursuit, several initiatives have been taken up from time to time.
- The NSS volunteers participated and attended the debate on **Global Nuclear Disarmament** organized by External Affairs Ministry.
- The Rama-Krishna Mission gave a presentation and showed a short movie on the life and ideology of Swami Vivekananda. The book **Awakening India** was distributed amongst students and staff.

- International Youth Forum organized a presentation on **Youth and Energy**.
- Two five-day **Soft Skills Training Programme** for Delhi Police constables were organized in the college.
- Investor Awareness Programme was organized by ICSI (Institute of Company Secretaries of India).
- NSS volunteers participated in the Voter Awareness Programme organized by Election Commission.
- The Art of Living organization staged a drama on the present day grim situation of issues related to women.
- Health camps for staff and students of the college are organized by the unit annually. Cancer Awareness Programme was one such event organized in collaboration with Cipla.

#### **Eco-Club.**

The Eco-Club in the college is run in co-ordination with the Department of Environment, Govt. of NCT of Delhi. The Eco-Club of Shivaji College, **e-Saviours** has been working tirelessly to educate the youth and initiate environmental activities. **One World, One Environment** is the slogan of the eco-club and it aims to practice the **3R's: Reduce, Reuse and Recycle**. As part of this agenda the eco-club organizes annual excursions to educate students about the human impact on the environment. Some activities held by the club are as follows:

**2010-2011:** The Eco Club organized a one-day excursion programme in which 102 students along with seven teachers visited **Yamuna Biodiversity Park** on 5<sup>th</sup> March 2011. These visits enhanced their understanding of native flora and fauna, various ecosystems, conservation strategies and their importance for sustainable development. **E-waste education and collection drive** was also launched on 22<sup>nd</sup> March 2011 in the college campus, in association with **i-dream**, an organization working with Nokia. In this programme, old mobile phones and accessories were collected and certificates were distributed to students contributing in this drive.

**2011-2012:** The Eco-Club activities were inaugurated with the celebration of **World Ozone Day**. A number of competitions such as poster making, rangoli making, slogan writing were organized.

**2012-2013:** The Eco-Club activities were inaugurated with **Protect and Plant a Tree** programme on Teachers' day. A number of competitions such as Poster making, Rangoli making, Slogan writing and Know Your Garden were organized on the occasion. A pledge was also taken by students, teachers and non-teaching staff members to protect and plant a tree in order to save Mother Earth. The Eco-Club also organized a programme in which 55 students along with teachers visited the **Yamuna Bio-diversity Park** on 21<sup>st</sup> March, 2013. These visits enhanced their understanding of native flora and fauna, various ecosystems, particularly wetland ecosystems and their importance for sustainable development.

**2013-2014:** Many activities like paper recycling, e-waste collection, poster-making, photography, videography, quiz, debates, kitchen gardening and rain water harvesting were organized. Several drop boxes are placed within the college campus to collect paper and e-waste.

Eco-club conducted a workshop *Ankuran* for the faculty and students of the college to disseminate knowledge about advantages of using medicinal plants in daily life.

**College Program Calendar:**

Month	Program
July	Orientation Program
August	Freshers' Party
September	Students Union Elections
January/February	College Cultural Festival: Vibrations
January/February	Department Festivals
February/March	Sports Day
March/April	Annual Day
April	Department Farewells

**5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.**

A large number of students participate as members of college teams in various games and tournaments organized at the University/ National/ State level. A significant number of students have also secured positions in these tournaments. Details of the achievements of the students in sports at different levels are given in Appendix 5.4.

### **Dramatics**

Our Dramatics Society, *Vayam*, performed at a large number of colleges and won many laurels. Their achievements are listed in Appendix 5.5.

The students also participated in various **Inter-College competitions** and brought laurels to the college. For details refer to Appendix 5.6.

For the achievements of cadets of Shivaji College, refer to Appendix 5.3 and for the achievements of PwD students, refer to Appendix 5.7.

Equal Opportunity Cell of college organized an Inter-college meet in 2012. Dancing, Singing competition and Creative Writing were organized for PwD students in this meet. Sadanand, from B.A. Hons Political Science of our college, achieved the 2nd position in Dancing.

#### **5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?**

- A feedback form with neutral, objective questions related to teaching methodology, academic environment, facilities and infrastructure, is filled in by the students and their identities are kept anonymous.
- The feedback is analyzed and discussed in departmental meetings, following which ways of improvement are discussed.
- Prospective Employers also give suggestions and feedback to the administration.
- The college considers the suggestions and complaints received via the process of feedback in a positive and healthy manner.

#### **5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.**

Students are encouraged to contribute material for the college magazine *Shivraj* which is a major annual publication. Articles, stories, poems and other creative endeavors taken by students and teachers are published in the college magazine. Besides providing an opportunity to get their work published, the magazine also involves students as editors in areas like editing, designing and printing. A book *Anujivami: I survive* was released in a conference organized by WDC. The proceedings of a workshop organized by WDC in collaboration with

National Institute of Disaster Management, were published in a booklet. Eco-club conducted a workshop *Ankuran* on the development of herbal garden in which a booklet **Herbal Medicinal Plants** was released. Students have been active contributors in all these ventures.

**5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.**

Yes, the college has a Student Union duly elected every year through a fair, democratic procedure organized by Student's Advisory Committee in accordance with university rules. The college administration ensures that free and fair elections are held. Every department has an exclusive Student Society for organizing various academic and extra-curricular activities of respective departments throughout the year.

**Activities:** The major activities of the student council are to organize the Student Freshers' Party, Shivaji Jayanti, College Festival **Vibrations**, Social activities/Awareness programmes like motivational talks, cleanliness drives, collection of old clothes (Goonj) and Blood donation camps amongst many others.

The following are the activities of **Students' Union** during the last four years.

- A **cleanliness drive was organized by N.S.S.** in the Sports Ground of college on the 22<sup>nd</sup> March 2011. 200 students volunteered along with the students union to give a facelift to the sport ground.
- A collection drive was set up in association with the NGO '**Goonj**' to collect clothes for the needy, which received a very positive response.
- **Blood Donation Camps** were organized on 22<sup>nd</sup> March 2011 and on 11<sup>th</sup> October, 2012, 138 students have donated blood to Lions Blood Bank, Delhi. Also, Blood donation camp with the theme **YOU CAN...MAKE THE GAP** was organized by Student's Union on 28<sup>th</sup> October, 2013 in which more than 114 students donated blood to RML Hospital Blood Bank.
- Motivational talks on the topics **Positive and Positive is the only key to success** and **Role of the Youth in Building a Nation** were organized on 31<sup>st</sup> January 2014 by the Students' Advisory committee.

**Funding:** The College meets the financial requirements of Students' union by collecting a nominal fee of Rs.100/- per student.



**5.3.6 Give details of various academic and administrative bodies that have student representatives on them.**

**Academic:** Each department has an exclusive society to organize events like seminars, conferences and activities related to the discipline. These activities are managed by students who hold various executive positions in the societies.

**Extra-curricular Societies:** Committees like the Magazine Committee and the Cultural Committee elect students for various positions. Students are delegated with the task of managing and organizing respective activities. The elected editorial board is responsible for editing, designing and collaborating material for the magazine. In the cultural committee, students handle the task of facilitating the organization of events in and across colleges. Societies namely *Vayam*, *Vibgyor*, *Footloose*, *Bizarre*, *Dictum* and *Shutterbugs* are managed by student representatives under the guidance of the teachers. Our student representatives are part of the College Complaints Committee (against sexual harassment), the Library Committee and the Students' Union.

**5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution?**

The institution networks and collaborates with former faculty and the Alumni through the Alumni Association and Alumni Meets. A cultural meet for the alumni followed by dinner was organized in 2011. An Alumni meet was held on 8<sup>th</sup> March 2015 in college premises. A form is available on the college website for the ex-students to register themselves with the Alumni club. Professional information of the alumni is obtained through this form. In this way, the college is able to have a database of the professional whereabouts of its ex-students.

## **CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT**

### **6.1 INSTITUTIONAL VISION AND LEADERSHIP**

#### **6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?**

Shivaji College believes in attaining excellence and lays emphasis on all-round, integrated development of its students. The mission of the college is to provide academic excellence in fields of science, commerce and humanities. It encourages the spirit of scientific inquiry by motivating the students and faculty for continuous research and learning. The college encourages competitiveness and a yearning for perfection among all members and nurtures diverse talent among students.

Shivaji College promotes equality of education irrespective of social class, gender, religion and caste. The college organises various activities to sensitize the students towards social issues, gender bias, nature and environment. With adequate state-of-the-art infrastructure for extracurricular activities and sports, the college promotes physical and intellectual agility among all members of the institution. Parallel education runs deep into the curriculum and to achieve this, the college organizes seminars, conferences, symposia and other events. This facilitates interaction between students and people from all walks of life. The college works towards grooming the students so that they become key role players in building a culturally sensitive and knowledge based society.

#### **6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?**

- The college functions under the leadership of the Principal who is the member secretary of the Governing body (GB). The Governing Body holds regular meetings and deliberates on issues related to governance of the college and takes policy decisions. The Principal ensures effective implementation of all policies and decisions of the GB and parent university through the staff council.
- The management believes in collaborative governance and delegation of duties to teaching and non-teaching staff. Staff Council forms committees responsible for various roles which are vital for effective functioning of the college and achieving the goals and objectives of the institution. All academic and

development decisions in the college are based on the recommendation of these committees.

- Ideas and suggestions of faculty for improvement are encouraged and accepted by the top management after due consideration. This results in nurturing of innovative and creative ideas for inclusive growth of the college. The management also encourages the faculty to undertake research activities and professional development courses, thus leading to quality enhancement.

### **6.1.3 What is the involvement of the leadership in ensuring:**

- **Policy statements and action plans for fulfilment of the stated mission**
- **Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
- **Championing organizational change**
- **Reinforcing the culture of excellence**

Shivaji College has well-defined procedures for day-to-day activities to facilitate fulfilment of the stated mission.

- Every new academic session is planned in an organized manner. Management conveys all action plans, policies and objectives of the college to all the stake holders at beginning of the session.
- Under chairmanship of the Principal, Staff Council chalks out the execution plans. Before an academic session begins Committees are formed. All departments and committees formulate their plan and decide execution strategies with their Conveners and convey the same to the Principal. They also present a report in the Staff Council at the end of the session.
- Regular monitoring and review of the action plans in departments and committee helps in effective and timely achievement of targets and objectives. All curricular, co-curricular and extension activities are thus effectively carried out by the Staff Council through its committees, with full support of the management in all respects.

- Principal ensures that all the activities and events aim at all-round development of the students and academic calendar is strictly adhered to.
- The college leadership maintains regular and active **interaction with all stake holders** during the span of an academic session. The Principal interacts with them, both at formal and informal levels, at various occasions.
- **Interaction with students** takes place from the onset of admission till the completion of the course. A Counselling Committee is formed to help admission seekers.
- The college organises an Orientation Day on the first day of the Academic session where all new students and their parents are invited and the Principal briefs them about the values and functioning of the college as well as their role in it. All teachers-in-charge, conveners of various committees, NSS and NCC in-charge inform the students about their respective activities, infrastructural facilities, action plan and values of the institution.
- Every department also holds its own orientation programme to introduce the faculty and convey academic schedule and time table of the department at onset of new session.
- Annual Day function is an important event for direct interaction of the college leadership with all stake holders. Alumni and parents of the prize winners are duly invited on this occasion.
- The Principal presents the annual report of the college that includes the details of the achievements of the college during the academic year. Members of Governing body also address the students on this occasion.
- Principal and Vice principal take routine rounds of the college and interact with students. They are accessible to them for discussion, feedback or complaint on issues concerning them.
- **Interaction with staff:** A two way communication channel between the staff and the leadership is an important feature of Shivaji College. There is an open and free interactive environment in the college.
- Staff Council is an important platform for formal interaction between the Principal and the faculty.

- Departments meet the Principal as and when required, to discuss issues about students and the concerned staff. The Principal is also open to discuss any individual grievance or issue with faculty.
- The college has duly elected Staff Association and a Union of the non-teaching staff members which represent the issues and welfare of their respective bodies to the authorities. The management and staff work in complete unison with each other thus resulting in a remarkable work satisfaction.
- **Interaction with public:** The college plays a very important role in the society and actively interacts with public in many ways.
- The public can view updated information about College activities on website of the college. As per the government norms, a faculty member is appointed as a Public Information Officer, who is responsible for responding to all the RTI enquiries addressed to the College.
- A nodal officer appointed in the college works as a public relation officer.
- The college not only organizes activities for students and staff but also for general public so as to make a valuable contribution towards bringing about a social change. There have been numerous occasions of interaction with public, out of which a few notable ones are:
  - On Rashtriya Ekta Diwas (31<sup>st</sup> October 2014) four hundred Students including NSS and NCC volunteers spread the message of national unity and integration in to the neighbouring area of the college.
  - Women's Development Cell of the college released a book titled "*Anujivami: I Survive*" in 2014. The students covered stories of women from different sections of society in the book.
  - Organ Donation Awareness Walk was organised on 5<sup>th</sup> September, 2013 in which around one thousand students participated and distributed pamphlets. A street play on this issue was also presented for the public.
  - Open Day on admissions was organized in June 2013 for General Public in collaboration with a leading daily, Navbharat Times.
  - Peace People Society Forum formed in 2012, in which College youth undertook several visits to Sudinalaya, a rescue home for women in distress, and were part of the rescue teams.

- **Proper support for policy and planning:** Latest technology in the form of laptops, computers, software, well equipped laboratories, Wi-Fi in the college, is freely available to all. Apart from this, the laboratories are frequently upgraded and departmental rooms are made available to the faculty for academic work.
- Leadership of the college also helps the faculty in getting funding and sponsorship from different government agencies and private organizations for organizing seminars and workshops.
- The management provides opportunities to staff for their academic growth and also ensures that the teachers carry out their duties well and work effectively for the students.

**Reinforcing the culture of excellence:**

- The Teacher-in-charge of every department holds regular meetings, reviews progress of syllabus with faculty and discusses student feedback, challenges, and co-curricular activities of the department.
- Continuous student appraisal and uploading students' attendance every month has helped in improving regularity and performance.
- Excellence is also promoted by honouring deserving students with awards and providing scholarships to needy and meritorious students.
- Periodic appraisal reports for non-teaching staff are mandatory. Staffs are given timely promotions as per University rules.
- Hierarchy of staff is maintained to ensure accountability.
- Best performer amongst the non-teaching staff is felicitated on the College Annual Day, to motivate the staff.
- A biometric system is installed for the administrative staff to ensure regularity and fair assessment. Leave rules are well adhered to.
- **The college Management champions organizational** changes to bring in progressive outlook.
- New posts are created for better management and organization, as and when required. The post of Vice Principal was created in 2010 which brought about a positive organizational change. Other such examples are formation of Eco Club in 2006, Clean Campus Committee in 2013, creation of IQAC in 2015 and appointment of

Nodal officer in 2013. All these aim at a progressive leap forward.

- The management encourages the members to take up new initiatives and provides all support in providing infrastructural, financial and other resources.

#### **6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?**

The college works towards continuous improvement in its policies and its effective implementation.

- An **internal assessment** monitoring committee is constituted by the Staff Council every year that oversees the process of compiling the internal assessment and transferring the same to the university assessment system.
- A **moderation committee** is formed within each department, which checks and moderates the internal assessment of the students before uploading to the University evaluation software.
- **Academic supervisory committee** evaluates the time tables and work load of each department. This committee monitors, controls and evaluates the academic working in the college. Results are discussed in detail at the meetings with the department and in the Staff Council. Result analysis at each level leads to action plans and improvement strategies, which are implemented at various levels.
- **Special lectures**, extra classes and remedial classes are scheduled, if required, by the individual department. Suggestions and feedback of students are taken which are also addressed to.
- **Continuous monitoring** is done in department meetings to ensure that the policies are implemented and time lines are followed.
- An **IQAC** has been formed in February 2015 to monitor the procedures and maintain quality of the procedures and activities in the college.

#### **6.1.5 Give details of the academic leadership provided to the faculty by the top management?**

- The top management provides a congenial academic environment, ample opportunities for promoting academic excellence and holistic development of the institute.

- The management encourages faculty to attend workshops, conferences and take up projects funded by the parent University and other international institutions. Duty leave to attend these is sanctioned within rules.
- The faculty conducts national and international conferences.
- Each department organizes an annual academic festival and experts from the concerned fields are invited. This leads to immense updating and addition to knowledge of both the staff and students.
- The Governing Body members of the college interact with the staff and students on occasions like annual function of the college, festivals, conferences and seminars conducted by the college. They interact with the faculty formally during lectures or informally in small groups.

#### 6.1.6 How does the college groom leadership at various levels?

College provides ample opportunities to students and staff to display and groom their leadership qualities.

- **Leadership opportunities for students are** aplenty in college. Each department has an elected Society, managed by student executive body.
- Under the guidance of their teachers, students plan and organize various activities like inter-college academic festivals and other activities.
- Annual elections of the Student Union of the college are carried out with strict protocol. Students also elect two Central Councillors to represent the college at the Delhi University Student Union.
- The WDC, NCC and NSS wings in the college, groom students for leadership through various programmes and excursions organized across the year.
- **Grooming Leadership** for staff takes place through responsibilities of Teacher-in-charge, Committee Convenor, and Staff Council Secretary by rotation, as per the laid out rules.
- The college conducts various motivational talks by experts from different fields. An interactive seminar was conducted to mark “Good Governance Day” on 19<sup>th</sup> December 2014.



**6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?**

The college believes in decentralized governance and an opportunity is provided to the faculty to share the administrative responsibility of the college. This leads to a transparent system of governance, and administration works smoothly towards achieving the mission of the college.

- All activities of the college are carried out mainly at four levels viz, The Governing Body (GB), Head of the institute, Staff Council and the Departments. Along with this, there is administrative staff with defined hierarchy. Governing body is the regulatory authority and Principal is the member secretary.
- Principal is head of the institute and Chairperson of the Staff Council. Staff Council consisting of all faculty members, takes decisions on matters pertaining to the college. These include setting up guidelines for admission of students, preparation of College time-table, planning all academic, curricular, extra-curricular activities, sports and social outreach activities during an academic year. Staff Council forms committees which work under their conveners to carry out these responsibilities.
- Building Committee is constituted by the Governing Body of the college. It includes the Chairman, Treasurer, Member secretary of Governing body, Bursar, two faculty members, one representative each of administration and accounts department. An architect and a Civil Engineer of the rank of executive engineer from CPWD or an equivalent body are also included in the committee.
- A Provident Fund Committee is formed by the GB and includes one representative each of the teaching and the non-teaching staff.
- Department activities and responsibilities are carried out by the faculty under their respective teachers in charge. Committees are formed within the departments to carry out various responsibilities.

**6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.**

Shivaji College encourages a culture of participative management by involving staff members in a number of administrative roles. Two teachers, one with more than ten years of work experience and the

other with less than ten years of work experience, and one representative of the non-teaching staff of the college are members of the GB.

Following administrative roles and responsibilities are vested with the members of the teaching staff:

- **Vice Principal:** Appointed by the GB, out of nominations from the faculty, shares the responsibility of the Principal, as per rules of the University, and is the acting authority in his/her absence.
- **Bursar:** Appointed by GB on recommendation of the Principal. He/she supervises the maintenance and audit of various financial accounts and is responsible for proper utilization and disbursements of funds in the college.
- **Superintendent and Deputy Superintendent of Examinations:** Appointed by the Staff Council, they are responsible for smooth conduct and supervision of semester end final examinations.
- **Teachers-in-charge:** It is a mandatory responsibility of every permanent faculty member given by the Staff Council. A Teacher-in-charge for one year by the staff council by rotation on the basis of seniority.
- **Public Information Officer:** Addresses all RTI enquiries on behalf of the college.
- **Nodal Officer:** Acts as a Public relations Officer of the college.
- **Equal opportunity cell coordinator:** Looks after the interests and facilities for differently abled students and teachers in the college and is in touch with Equal Opportunities Cell of the University.
- **Conveners of Committees:** Faculty members work as conveners or members for maximum of two years, at a stretch in a Staff Council committee.
- **PF committee** includes the bursar, one representative each, of teaching and non-teaching staff, Principal, Chairman, and Treasurer of the Governing body.
- **NCC in-charge** for Girls and Boys wing separately.
- **NSS Convener**
- **Students** also help the management of the college through their roles in Departmental societies and cultural societies. A duly

elected Students' Union and Executive body, represent the students.

## **6.2 STRATEGY DEVELOPMENT AND DEPLOYMENT**

### **6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?**

The quality policy of the college is in alignment with the parent University and the UGC. The quality of administration, academics and infrastructure is strictly monitored and managed by:

- **Teachers-in-charge of Departments:** The results are discussed in the meetings of individual departments with the Principal and Secretary Staff Council, and corrective measures are implemented.
- **Academic Committee and Academic Supervisory Committee** control and monitor the academic workload and exam results of students. This committee also scrutinizes the student - teacher ratio, sanctioned work load and adherence to time table.
- **Development Committee and Building Committee** monitor the upkeep and maintenance of the building. The formal facilitates repairs and replacements as and when required in the building
- **Student Advisory Committee and Discipline committee** handle student activities and maintain discipline.
- **Other committees** also regulate the quality of functioning in their respective areas.
- **Internal Quality Assurance Cell (IQAC)** was constituted in February 2015 which works for quality monitoring and enhancement through concerted efforts of its members and the management. The IQAC consists of Principal, Vice Principal and eight faculty members.

### **6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.**

The college has a perspective plan for development for following vital aspects.

- **Infrastructure:** Apart from the routine upkeep and maintenance of the existing building, the college aims to create more upgraded and modern infrastructure. In the next two years, the college aims to have chalk free class rooms with more eco-friendly set up and modern technology. Smart boards shall be installed in class rooms.

Apart from this, in the year 2015-16 few more ramps shall be built keeping in mind the needs of physically challenged stakeholders. A seven- storey **new block** in the college premises is already in pipeline. The approvals from all concerned civic bodies have been received and construction shall begin soon.

- **Faculty development and Research programmes:** The college has always encouraged the faculty to take up professional growth and provides opportunities for them to attend seminars, conferences, present papers and publications. The college leadership plans to sign MoUs with at least one International University so that exchange programmes can be organized for students and faculty.

National and international conferences shall be organized in different disciplines and on inter- disciplinary themes. The college plans to create a College Research Cell (CRC) in the coming year (2015-16) and motivate faculty to obtain projects from DBT, DST, UGC, ICSSR and University of Delhi. The college currently has nine innovation projects (second highest in the entire University) and efforts shall be made to increase the number. New research facilities and modern labs shall be added in the new block to be constructed.

- **Student development and curricular growth:** The college plans to increase remedial classes and introduce short term courses for students, which shall supplement their graduation and make them employment ready. Language and communication skills and soft skills development courses shall start soon. The college also plans to have more emphasis on internships for first and second year students. Through the Alumni association the, college plans to increase networking and develop industry interface for student placements. The number of companies that visit the college is expected to be doubled in next two years. The college aims to make arrangement for providing guidance to students for preparing for civil examinations.
- **Extension Services:** The College organizes ample activities and events for community engagement. It signed a MoU with an NGO, Fringe Habitat India, on 31<sup>st</sup> March 2014 for rural awareness programmes. It plans to sign MoUs with two more NGOs, by 2016-17 and continue retainer ship with them in future. This formal arrangement will give an opportunity to our students do a focused social work and then witness the fruits of their continued efforts. The college further plans to adopt a small area in a neighbouring

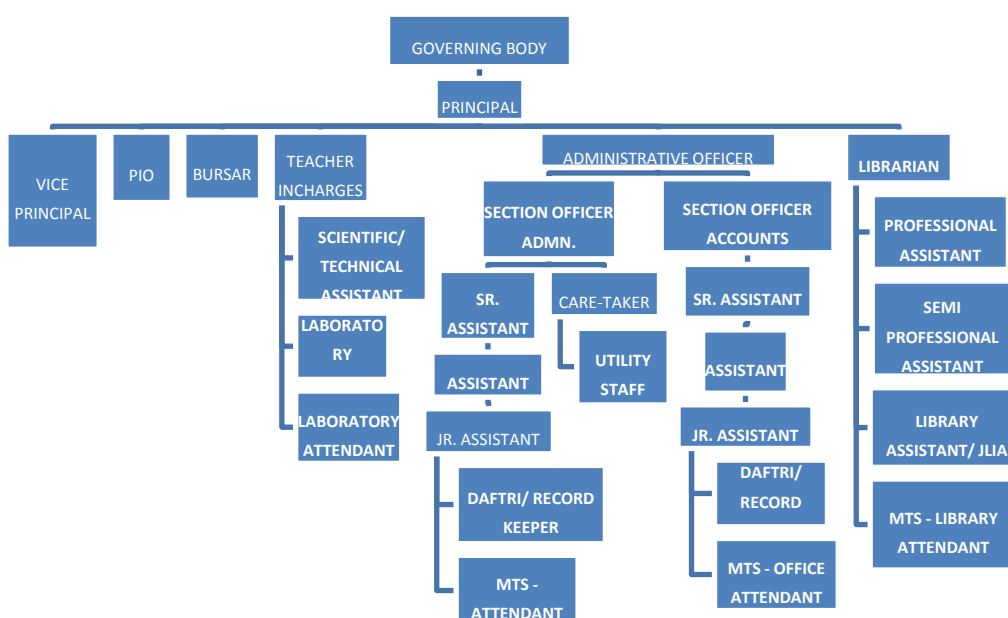
slum for development through focus on child education and women empowerment.

- The college collaborated with NDMA and NIDM for organising different events and now plans to enter into formal agreements with them for regular mock drills, talks and seminars.

### 6.2.3 Describe the internal organizational structure and decision making processes.

The college functions under the supervision of the Governing Body whose powers are defined by the University of Delhi. Principal is the Chief Executive and Administrator of the college who coordinates all the activities of the college. Principal is also the ex-officio chairperson of the staff council which functions through various committees to carry out various functions of the college. The decisions related to academics like workload calculation, library purchases, time tables, maintenance of infrastructure, admission criteria are taken by the Staff Council through its committees subject to the provisions and ordinances of the UGC and University of Delhi.

The college has a well-defined organizational structure in the administration staff. Hierarchy of the staff is defined as per the rules of the Parent University and UGC.



\*MTS: - Multi Tasking Staff \*\*JLIA: - Junior Library & Information Assistant

**6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following**

**Teaching and Learning**

The college continuously improves its infrastructure and incorporates new technology, tools and aids, to improve the teaching and learning processes. Classrooms and all laboratories are equipped with projectors. Wi-Fi is available across the college campus for teachers and students. Laptops are given to students and systems are also available in library to help students prepare their presentations and get access to e-resources.

To supplement regular class room teaching workshops, conferences, seminars and educational tours are regularly organized for students and teachers. The students are encouraged to participate in various seminars, festivals, events and research projects not just in Shivaji College but also in other colleges or Universities across India. The faculty encourages students to participate in “Gyanodaya” by University of Delhi, enhance their leadership qualities, intellectual skills and team spirit.

**Research& Development**

Within the rules of UGC, study leave with full remuneration is provided to staff for PhD, post-doctoral research work and for attending workshops and training programmes. They are encouraged to attend conferences and seminars and undertake research projects. Two new research laboratories have been added to the existing ones during the academic year 2013-14. Teachers also arrange for students to visit labs in other institutes for exposure to varied new techniques.

**Community engagement**

The college has an active NSS wing, Women’s Development Cell, NCC, and Eco-Club. Teacher-Conveners to these bodies are appointed in staff council every year. New students join these bodies every year and activities are organized all year round to encourage engagement with the community. Some examples are given in section 6.1.3

NCC regularly trains its cadets at various levels and sends them to various exchange programmes

**Human resource management:**

Human resource is an integral part of an organization and the college takes utmost care to manage this resource very efficiently and

carefully. The roles and responsibilities, interests and rights of the staff are respected and protected within the purview of the rules. Confidential performance appraisals are regularly filled and used positively for future improvement. Personal files and data are well recorded and maintained. Apart from following all rules of remuneration, leave and perquisites, emphasis is given to the welfare and development of the staff. In addition to the welfare schemes and facilities for staff enumerated in section **6.3.5a**, various measures for managing human resources are as listed below:

- The college has computerized account keeping and administrative system, Pay-slips and PF statements are transmitted electronically. The superannuation benefits are also provided promptly.
- Each employee in the administrative office is given latest modular working furniture.
- A bio-metric attendance system ensures regularity and fair assessment of non-teaching staff.
- To motivate employees and to honour sincerity, cash award and certificate of appreciation for best worker is given every year to one member of non-teaching staff of the college.
- A Thrift and Credit society managed by members runs successfully in the college.
- All leave rules as per the University of Delhi statutes are followed.
- The leadership and authorities provide a very congenial environment for efficient working.
- Industry interaction

Staff Council appoints Placement Committee in the college that works to provide students with some exposure to industry and employment opportunities thereof. Companies are invited by the college to give pre-placement talks, conduct interviews, and hold discussions. Companies also offer internships to second year students during summer break. The Placement Cell works for increasing industry interaction, networking with corporations and providing corporate exposure to the students. Seminars are also conducted annually on topics like “art of resume writing” and “preparing for Group Discussions”. They are given equal opportunity to participate in the placement activities subject to their eligibility.

As part of the curriculum, the students take up internships in industry and industry excursions.

Shivaji College organized its first ever Entrepreneurship summit in South Campus in 2012. A similar half -day session was also conducted on 9th March 2015 in the college auditorium and five panellists had a discussion on the theme “**Dare to dream: young entrepreneurs**”.

**6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?**

- Annual report enumerating details of all activities and achievements of College is presented at the annual day function and sent to GB members.
- Notice boards on all the floors in all the wings of the building display relevant information
- The college website is regularly updated with notices upcoming events and reports of activities of the college. All tenders and quotations are also put up on the college and University websites apart from latest news of the college.
- Information about meeting and decisions of GB is provided to concerned stake holders through letters and notices.
- The college prepares a detailed prospectus for disseminating information about college.

**6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?**

- To increase the efficiency of the institutional process the management encourages the various committees of teachers to take up new initiatives and evolve innovative programmes. All committees are sanctioned advance funds, as per the rules, for various activities once the budgets have been drawn up. Conveners of various committees present report of their activities in Staff Council at end of the year. This has increased the accountability and effectiveness of working.
- At all levels of working, opinions are sought and taken into account when decisions are made.



- The college provides computers, laptops, INFLIBNET, access to e-journals etc. to faculty.
- Principal sends nominations for “excellence in teaching” awards to Govt. of NCT Delhi.
- Cash award and certificate of appreciation is given to the best non-teaching staff.

**6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.**

All resolutions of GB are well recorded and these are implemented fully. Refer Appendix 6.1

**6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If ‘yes’, what are the efforts made by the institution in obtaining autonomy?**

There is no provision for autonomy within University of Delhi.

**6.2.9 How does the Institution ensure that grievances /complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stake holder relationship?**

The authorities aim at creating a harmonious and friendly environment for all and continuous efforts are made to see that there are no situations of grievances or dissatisfaction among students and staff.

- Complaints, if any, are immediately marked to the respective committees or departments, and are attended to with utmost priority by the discipline and student advisory committee.
- The college has a duly constituted Anti-ragging Cell and College Complaints Committee (against sexual harassment).
- All grievances of students regarding marks and examination results are promptly taken up to solve at College level or sent to the examination branch of University of Delhi.
- Any complaint or grievance of staff members is immediately taken up by the Principal.
- Suggestion and complaint boxes are checked once every month.

**6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?**

Details are given in Appendix 6.2

**6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes', what was the outcome and response of the institution to such an effort?**

- The Principal and Vice Principal have an open door policy where all stakeholders can meet them to give their feedbacks, complaints or suggestions related to any issue of the college.
- A suggestion cum feedback box for students is strategically placed in the college for institutional performance and is checked on a monthly basis. Library users also give their feedback through OPAC and feedback registers. The suggestions are regularly analysed at the relevant forum and appropriate action is taken promptly.
- These feedbacks help in analysing the teaching learning process and functioning of the college.

**6.3 FACULTY EMPOWERMENT STRATEGIES**

**6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non teaching staff ?**

- The college encourages faculty for attending refresher, orientation courses and international exchange programmes, motivational talks, seminars across universities. The college bears the cost of these as permitted by rules of UGC and the University of Delhi.
- The college conducts seminars and talks by experts from time to time in various fields with the objective of keeping the faculty abreast with the latest knowledge and motivating them.
- Motivational talks are also conducted for holistic development of the employees and the students. For instance, motivational talks on the topics **“Positive and Positive is the only key to success”** & **“Role of the Youth in Building a Nation”** were organized in January 2014.
- The non-teaching staff and the administrative staff are also given on the job training. Every year the college sends lab assistants for trainings to acquire new laboratory skills and understand the usage

of latest techniques and equipment.

- Workshops for Laboratory staff are regularly organised. The non-teaching employees are also trained to use the student management and the accounting software.
- ICT workshops are conducted frequently.

**6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?**

The college takes various steps for professional development and empowerment of its employees.

- The college adheres to all rules and guidelines of the UGC for determining eligibility criteria for promotion of faculty.
- The college encourages the faculty for attending international exchange programmes.
- The faculty is also encouraged to attend various academic seminars, conferences, workshops and faculty training programmes conducted by UGC and other recognised organisations. They are also encouraged to attend motivational and leadership seminars.
- The faculty is granted duty leave for the period of course attended and expenses are reimbursed as per the rules of the UGC.
- The college frequently conducts seminars and talks by experts in various fields with the objective of keeping the faculty abreast with the latest knowledge and motivating them.

**6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.**

- The performance reports of the laboratory attendants are filled by their superiors and those of the technical assistants are filled by the concerned Head of the concerned Department. The data is maintained and evaluated regularly.
- All performance appraisal systems are mandatory and are useful at the time of promotion and also in improving the standard of working of the college.
- Complete transparency in the system generates confidence in the stakeholders.

**6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?**

The teachers-in-charge of the departments regularly evaluate the performance of the laboratory staff through student feedback and self-appraisal forms. The outcomes of all these appraisals are discussed individually with the concerned member by the Principal.

Self-appraisal forms of faculty are also filled up at the time of promotions.

**6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percent age of staff have availed the benefit of such schemes in the last four years?**

Following welfare schemes and facilities are provided to teaching and non-teaching staff of the college:

- **Health services:** The college has in its premises, the west unit of World University Services Health Centre. Health Camps for preliminary health screening are conducted to monitor cardiac health, blood sugar, and bone density for teaching and non-teaching staff. The college conducts awareness seminars on socially relevant issues like dowry, AIDS, drugs etc.
- **Medical Reimbursement** are given as per the guidelines of the University and UGC.
- **Group Insurance Scheme** is available to all members.
- The college has a **Ward Quota** for admissions of eligible wards of employees.
- **Well maintained pantry** for teaching staff in the staff room.
- **Academic Facilities** like dedicated computer rooms in library and staff room with Wi-Fi facility and e-resources are available for the employees. Each teacher can get twenty five books issued and non-teaching staff also gets six books issued in their name.
- As per the University rules the college gives **ward education allowance** to all the staff members. Washing allowance and Uniform allowance is also given to class IV staff.
- All **leave rules** of the University are adhered to including child care leave.

- **Miscellaneous facilities and initiatives** are taken up by the College. The college facilitated the making of Aadhar cards for the employees within the college premises in May 2013.
- **Thrift and credit society** of the staff of the college is successfully running in the college.
- **Staff Quarters** are available for teaching and non-teaching staff in the premise.

**Percentage of staff availing Welfare schemes in the last four years**

Year	Health Centre	Medical Reimbursement	Thrift and credit society	Group Insurance
2010-11	27.94	45.10	87.25	100
2011-12	28.64	52.76	88.94	100
2012-13	28.72	51.06	90.43	100
2013-14	26.88	48.92	86.02	100

**6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?**

Apart from providing best quality infrastructure the college provides a congenial and friendly environment which is helpful not only retaining the existing faculty but also in attracting new talent. The college motivates the staff by sending nominations for “excellence awards in teaching” and providing various opportunities for professional development.

**6.4 FINANCIAL MANAGEMENT AND RESOURCE MOBILIZATION**

**6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?**

At the beginning of the session, the teachers-in-charge and conveners of committees give their respective requirements to the Purchase Committee through the Principal. The Purchase Committee and Development Committee invite quotations/tenders as per the General financial rules of the Government of India. The finance department has a trained staff with minimum qualification of B. Com. All finance related documents and bills or payments are processed by the Accounts Department, S.O Accounts, Bursar and Principal. All accounts are audited by an external auditor. Compliances are made accordingly and approved by the Governing Body.

**6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.**

All financial audits are done by an auditor duly appointed by the college on approval from University of Delhi as per the rules. External audit is also done by Govt. of Delhi.

Last audit of the accounts was done for the financial year 2013-14. The details of audit objections are mentioned in the audit report. Refer Appendix 6.3

**6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.**

The college gets 95% of funds UGC and 5% from Govt. of Delhi. University of Delhi also gives OBC grant and specified funding of projects. The college occasionally receives some computers and scientific equipment from the University of Delhi. All measures and precautions are taken to keep the deficit at minimum level. For income and expenditure statement of academic and administrative activities of the previous four years refer Appendix 6.3

**6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).**

- As additional funding, the college received grant from UGC under the merged scheme.
- For conducting various National and International Conferences, the college gets additional grant from various Government and/or autonomous agencies. After the completion of the event, fund utilization certificates are formally submitted to the funding agency.
- The college approaches various companies and private organizations for sponsorships. The college follows a strict monitoring process for sponsorships obtained.
- The college gets Rs 20,000 every year from the Govt. of Delhi for conducting activities of Eco Club and organizing *Van Mahotsava* since 2012-13. Earlier this was Rs 10,000 per annum.

- The college gets additional funding from various private donors for student scholarships awarded to the students on the basis of predefined criteria.

Details of additional funding are given in Appendix 6.4

## **6.5 INTERNAL QUALITY ASSURANCE SYSTEM (IQAS)**

### **6.5.1 Internal Quality Assurance Cell(IQAC)**

- a. Has the institution established an Internal Quality Assurance Cell(IQAC)?If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?
- b. How many decisions of the IQAC have been approved by the management/authorities for implementation and how many of them were actually implemented?
- c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them
- d. How does the IQAC communicate and engage staff from different constituents of the institution?.
- e. How do students and alumni contribute to the effective functioning of the IQAC
  - An IQAC has been constituted in February 2015 which works for quality monitoring and enhancement through concerted efforts of its members and the management. The composition of the IQAC consists of Principal, Vice Principal and eight faculty members. Roles and objectives of this cell are:
  - Developing and applying quality benchmarks/parameters for the various academic and administrative activities.
  - Arranging feedback responses and other stakeholders on quality-related institutional processes.
  - Acting as a nodal agency for coordinating quality-related activities, including adoption and dissemination of good practices and promoting quality.
  - Each department is scrutinised in detail regarding results, syllabi covered and time table adherence. In addition, library particulars, student teacher ratio are examined and corrections suggested. It ensures successful implementation of the

corrective actions by observing objective evidence supplied by the audited staff.

- The suggestions of IQAC and the instructions of governing body are recorded and fully implemented by the management. The IQAC committee has no any external members.
- Alumni give their suggestions and feedback on the functioning of the college through forms.

**6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If ‘yes’, give details on its operationalisation.**

- The Staff Council formally constitutes committees which manage and check the quality of administrative and academic activities. All these are enumerated in section 6.2.1 above. At every step of execution the quality is controlled and monitored.
- The college has a continuous system of evaluation. The teachers conduct class tests, assignment and internal examination for the students. These internal assessments are compiled and discussed with students in class. They are displayed on website and in case of very low performance the students are counselled or the parents are informed.
- A moderation committee at each department level compares the performance of each student in various subjects and any stark variation found is pointed out to the concerned teacher and student.
- An internal assessment committee is constituted by the staff council every year that oversees the process of compiling the internal assessment and transferring the same to the university assessment system.
- The workloads and time tables are framed every year and strict adherence is made thereof.
- The administrative staff has a well-defined hierarchy that keeps the operational quality in check. Review meetings, individual meeting with employees, issuing of a memo are some of the measures adopted to keep the quality in check.
- The college has efficient student management software. All records of the students, staff and financial matters are well recoded and maintained.



**6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If ‘yes’, give details enumerating its impact.**

The staff is provided training to enhance their skills and update their knowledge about latest technologies and software. The college sends laboratory staff of the department for specialized training University Science Instrumentation Centre. In house training is also provided to them.

**6.5.4 Does the institution undertake Academic Auditor other external review of the academic provisions? If ‘yes’, how are the outcomes used to improve the institutional activities?**

The institute does not have the system of external academic audit. Internally, the college continuously evaluates its academic performance and progress. Internal assessment records are displayed on the website at the end of each semester and students are made to sign on individual subject sheets. Feedback forms of the students regarding teaching and infrastructure are also evaluated and the analysis results are positively used for the benefit of the college. The Assessment Monitoring Committee monitors the internal assessment of the students submitted by the departments.

**6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?**

The quality assurance and the academic systems are maintained in line with the national education policy and the guidelines of the Parent University and the UGC.

**6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give detail so fits structure, methodologies of operations and outcome?**

The institution not only has some pre-set and well defined mechanism to monitor and review the teaching learning process but also continuously improves them. These are listed below:

- The time table of each class is displayed on the website as well as outside each lecture room and laboratory. This helps in monitoring the regularity of classes.
- Teachers-in-charges of the Departments hold regular meetings and information is collected on the percentage of syllabus covered by

each teacher. This information is passed on to the Principal who then discusses it with concerned teachers and takes necessary action.

- No teacher on ad-hoc basis is granted an extension without the written report on satisfactory performance by the concerned Teacher-in-charge of department. Quality of teaching is thereby maintained and merit valued.
- Students' attendance in every subject taught is also regularly monitored and uploaded
- Under the continuous evaluation system, all components of the internal assessment marks of the students are displayed on the website.
- The result of each department is discussed and analysed in detail in a meeting of the department with the Principal to identify the weak areas and take corrective actions
- The summary of results of each department for every semester is presented in the Staff Council. The suggestions of the Staff Council in this connection are implemented in the college.
- The Academic Committee and Academic Supervisory committee monitor the workload of each department and the options or additional subjects to be offered.
- The Principal and the Vice- Principal regularly take rounds of the college to ensure regularity of classes. Classes not held are reported on the staff notice board.
- The college has latest software in place to report, compile, broadcast and analyse all the academic data. Latest software is used for making time table.

**6.5.7 How does the institution communicate its quality assurance policies, mechanisms and out comes to the various internal and external stakeholders?**

- The college has a well maintained website where all the latest information is displayed for all internal and external stake holders. The college communicates all information through prospectus, notice boards, circulars and letters.
- A detailed annual report is presented to enumerate the academic, co-curricular and extra -curricular activities, individual and

collective achievements of the institution and other administrative or infrastructural upgrading. This annual report is read out at the annual function by the principal and sent to all, governing body members and the University of Delhi.

**Any other relevant information regarding Governance Leadership and Management which the college would like to include.**

The college leadership works in harmony and all fairness with all members of the staff to achieve its stated goals and mission. The vision of the management to lead the fifty three year young institute to the path of progress is visible in the immense care and attention given to overall functioning of the college.

## **CRITERIA VII: INNOVATION AND BEST PRACTICES**

### **7.1 ENVIRONMENT CONSCIOUSNESS**

Shivaji College is a vehicle free campus. It initiated a major step towards environmental consciousness by making the campus vehicle free. This green practice reduced pollution and rendered fresh and clean air for breathing.

#### **7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?**

Shivaji College is located in an area of 40,470 sq. meters with a built-up area of 11,216 sq. meters. The campus has a variety of herbs, medium size shrubs and trees. The institution had a green audit of its campus in 2013 by State Level Expert Appraisal Committee (SEAC). Environmental clearance was given on 22<sup>nd</sup> February, 2013. Approximately 450 plants were recorded in the year 2013. Gardeners are employed by the college to maintain the greenery.

#### **7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?**

##### **(a) Energy Conservation**

- College building has well lit class rooms, laboratories, staff-rooms as well as offices, to minimize the consumption of artificial light.
- The old fans have been replaced in order to reduce the consumption of energy. The students and staff members are instructed to switch off the electric switches if these are not in use.
- We are gradually shifting towards LED lights.
- Aluminium wiring has been replaced by copper wiring to minimize the wastage of electricity.
- LT Panels with MCCB & Capacitors have been installed to optimize the energy consumption.
- Tinted films have been placed on windows facing the sun in some of the rooms.
- Five star eco-friendly air conditioners and other electrical equipments are used to reduce the consumption of electricity.

##### **(b) Use of renewable energy**

- It has been proposed that Solar Panels be installed on the roof top covering an area of 1,200 sq.ms with Public Private Partnership (PPP).
- There is a vermicomposting pit in the garden to help generate manure.

- Fallen leaves are collected in a pit for the purpose of decomposition and recycling.
- Recycling of waste paper is done to form handmade paper.
- Waste water is reused for irrigation of plants in the campus.

**(c) Water Harvesting**

- A water harvesting pit in the low lying area of the garden is used to harvest rain water.

**(d) Check Dam Construction**

- Not required in a Metropolitan city like Delhi.

**(e) Efforts for Carbon Neutrality**

The college is aiming to become a carbon neutral campus. The following steps have already been taken in this regard.

- The college is within easy walking distance of the Rajouri Garden Metro station and Ring Road. A large number of students and employees prefer to travel by either metro or buses. They walk to the college to remain healthy and maintain environment. Many students and faculty try to have car pools to reduce carbon footprints. Such informal car pools have been in practice for the last two decades.
- The college has a huge open and green space to absorb carbon emission.
- Seminars and workshops are often organized to educate about environment and sustainable development

**(f) Plantation**

**Van Mahotsava** is organized every year on Teacher's Day by planting variety of saplings. Everyone participates with full enthusiasm in this eco-friendly activity. NSS also organizes plantation programmes every year. The campus comprises of maximum number of trees and has secured many prizes over the years in the flower shows of University of Delhi. **The college has Recreational/Ornamental Garden and Botanical Garden / Herbal Garden (Appendix 7.1).**

**(g) Hazardous waste management**

- Microbial culture is always autoclaved after use.
- It is ensured that Lithium batteries are bought through exchange policy.

**(h) E-waste management**

An awareness programme was conducted in collaboration with **Chintan**, an **NGO** wherein students, teachers and non-teaching staff were advised to collect e-waste. The e-waste collection bags are placed in the college premises.

**7.2 INNOVATIONS**

**7.2.1. Give details of innovations introduced during the last four years which have created a positive impact on the functioning on the college.**

- For ensuring transparency in the admission process, the cut-off lists of various courses are advertised in the leading newspapers and the same is also posted on the college website.
- Open Days are held for the general public before admissions to elaborate upon the admission process. Leading national newspapers are invited in the college to cover such events.
- The administrative section of the college uses Student Management Software for managing the data of admissions.
- The college is presently facilitating students with online security refund system. The students will be able to deposit fee through online mode of payment from the next academic session.
- The college organises an Orientation Day on the first day of the academic session where all new students and their parents are invited and the Principal briefs them about the values and functioning of the college as well as their role in it. All department coordinators, conveners of committees, NSS, NCC officers talk about their respective activities, infrastructural facilities, action plan and values of the institution. Every department also holds an individual orientation programme to introduce the faculty and convey academic schedule and the time table of the department.
- The college has software through which time table of all the classes can be accessed on the college website.
- The college has a **Student Information System** which provides online access to check one's attendance and internal assessment.
- High speed Internet and Wi-Fi facilities have been provided to students and staff.

- At the beginning of an academic session, each student can get four books issued on his/her library card.
- OPAC (Online Public Access Catalogue) enables students to browse the library database in a more efficient and precise manner.
- The college library is functioning with a computerized database system. It enables them to maintain the records of journals, magazines and books etc.
- A spacious air-conditioned reading section with Internet facility is available in the library for all the students and faculty members.
- Highly sophisticated softwares such as Mathematica, Microsoft Visual Studio 2010, My SQL, Flash (Multimedia), g++, GeoMedia and MapInfo (for teaching GIS) etc. are provided to students to excel in their respective fields.
- Online access through Delhi University Library System and INFLIBNET has been provided to students and faculty to help them carry out research.
- The college regularly upgrades infrastructure facilities in all labs as per the requirements in curriculum.
- Some of the classrooms are equipped with projectors to assist in audio-visual teaching.
- Laboratories and office are equipped with fire extinguishers and sand buckets.
- There are strict security checks at the main entrance. The college has tightened security by installing CCTV cameras. To provide sense of security to girls, women police constables and women guards are deployed in the campus. A PCR van constantly keeps vigil at the main gate.
- A complaint box is set up for the students. The Student Advisory Committee, Discipline Committee, Anti-ragging Committee and College Complaints Committee (against Sexual Harassment) take swift, appropriate and decisive action, if any complaint is registered.
- A lady student counselor deals with socio-psychological problems of the students and is available in the college twice a week.
- The college has a policy of giving fee concession to the needy and underprivileged students.

- Students have the facility to open bank account in Central Bank of India in the college campus.
- The college has two photocopying machines in the campus, one in the library and another near the front gate.
- Bus and railway travel concession is provided to students.
- A provision of Accidental/ Life Insurance Policy of Rs. 1 Lac per student is in place.
- W.U.S. (World University Scheme) health center provides health services to all students by issuing health cards at a nominal cost of Rs. 120 per year. Furthermore, W.U.S. provides services to the teaching and non-teaching staff along with their families. It focuses on preventive health care, diagnostic services and medical services.
- A Health awareness camp is organized every year to provide information on health issues.
- The college has one of the largest sports grounds amongst all Delhi University colleges. It has facilities for cricket, football, basketball, table tennis, athletics, softball and baseball. Associated infrastructure facilities such as changing rooms and store rooms are also available. Students participate in inter-college and inter-university tournaments. The college has been visited by various national and international players of repute who always encourage students to work hard and do well in sports and games. To improve the maintenance and facilities available in the sports ground, the college works on PPP model.
- The college has adopted inclusive practices for SC/ST/OBC and has an **Equal Opportunity Cell** for differently-abled students and employees. The Enabling Unit of college makes every possible effort to make the college friendly for “Persons with Disability.” The Unit organizes programmes and regular meetings in the college to bring out and enhance the talent of these students. The facilities provided to differently-abled students and employees are as follows:
  - Separate room for enabling unit students.
  - Separate facilities of computers, scanners, printers and Internet.



## Criteria VII: Innovation and Best Practices

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- Laptops with Wi-Fi connection.
- Exemption from paying annual fee.
- Braille books and CDs on various subjects.
- I-pods, tape recorders and photocopy facility.
- Special washroom for differently-abled students on the ground floor.
- Ramps have also been constructed at strategic locations in the college building.
- A singing competition was organized for differently-abled students in the Annual Cultural Festival (Vibrations 2014) to promote talent among such students.
- The college conducts university and competitive examination in a very effective and efficient manner. The key features are as follows:
  - The staff council of the college constitutes examination committee before the beginning of academic session and appoints superintendent & deputy superintendent for a term of two years.
  - The committee ensures timely submission of examination forms and the display of date sheets on the notice boards and college website. The committee values the time of students during examinations and ensures issuing admit cards well in advance.
  - Invigilation duties are allocated to teachers in advance.
  - Seating plans are displayed on notice boards before the conduct of examination to avoid inconvenience.
  - The committee ensures special arrangements for the students who are either physically handicapped or unfortunately met with accident, injury or suffer from any illness. However, the committee does not compromise with the rules and regulations of the University of Delhi.
  - The committee takes strong and appropriate actions against any case of unfair means.
  - The college is a center of various competitive exams like MBBS, DPMT, AIEEE, UGC-NET and university exams.

- The committee ensures that exam-related financial accounts are settled well in time.
- The college canteen has been extensively refurbished which offers hygienic and delicious food. The Nescafe and Mother Dairy kiosks located near the front gate offer variety of refreshments.
- The college staff room has a winsome pantry, offering beverages and drinking water to the staff and guests.
- The college has sufficient number of restrooms and lavatories with basic and modern amenities.
- The college has made contract with *Sulabh* to look after cleanliness in the college campus.
- Many workshops and seminars have been organized in the college by various Departments to familiarize students with the latest developments in research. Eminent professors and speakers from diverse fields are invited to enlighten, encourage and motivate them.
- **Organization of Study Tours:** Students of various streams gained practical knowledge through participation in four educational trips in *Gyanodaya Express* (organized by University of Delhi). The Eco Club of Shivaji College organizes an annual educational tour to Botanical gardens and National Parks to create awareness among the students regarding environmental issues (**APPENDIX 1.1**).
- A number of research projects are being undertaken by faculty and students (**APPENDIX 2.1**).
- Information bulletin on FYUP was presented in Antardhwani (Annual Cultural Festival of University of Delhi) in 2013-14 and a book was published on Foundation course entitled, **Building Mathematical Ability**.
- **A Soft Skills Training Workshop** for Delhi Police Constables (Western Zone) was conducted during 3<sup>rd</sup> -7<sup>th</sup> December, 2012. For Delhi Traffic Police Constables (Western Range) it was conducted during 15<sup>th</sup>-19<sup>th</sup> December, 2014.
- There is a complete transparency in governance and administration. All the tenders/quotations are invited on the college and university website.

- The accounts section of the college uses Payroll Software to keep the records of tax deduction & salaries. The section uses Tally ERP 9 software for maintaining accounts. TDS software is used for filing quarterly/yearly returns.
- The college awards meritorious students on the Annual Day. It also acknowledges and applauds significant contributions of a non-teaching employee on the same day.
- Cultural Festival (Vibrations), Annual Sports Day and Annual Day are celebrated with a great zeal. Lunch is also provided which promotes the spirit of celebration in the family of Shivaji College. The faculty goes for an annual picnic.
- A seminar was organized on Good Governance Day (19<sup>th</sup> December, 2014). Innovative ideas were invited from the faculty, administrative staff and students for better governance.
- A **Run for Unity** was organized on **Ekta Divas** held on 31<sup>st</sup> October, 2014 to celebrate the spirit of unity amongst the members of the college.

**The college has received “Award for Good Practice” at Antardhwani (Annual Cultural Festival of University of Delhi) in the academic year 2012-13.**

### **7.3 BEST PRACTICES**

#### **7.3.1 Best Practice I**

- (i) Title of Practice:** Promotion of Environment Consciousness
- (ii) Goal:** Environmental consciousness is a broad philosophy, ideology and social movement. It is concerned with environmental protection and conservation of its components. Environmentalists advocate the protection, restoration and improvement of the natural environment through control of pollution and protection of biodiversity. In brief, environmental consciousness is an attempt to balance relations between human beings and the various natural systems in such a way that all the components should be in a proper degree of sustainability.
- (iii) Context:** To achieve the above mentioned goal, college has two active committees: **Eco Club** and **Clean Campus Committee**.

Eco Club of Shivaji College was formed in 2006. It has been working in coordination with the Department of Environment,

Government of NCT of Delhi. The students and faculty in the club organize seminars on environmental issues such as deforestation, climate change, global warming etc. The students are made to understand the impact of overpopulation and genetic engineering on the prevailing environmental challenges. Eco Club encourages the use of paper and cloth bags.

Shivaji College is highly conscious about cleanliness and its impact on health and environment. The students and staff are sensitized in this regard. A “Clean Campus Committee” was constituted by the Principal in the college in March, 2014. This committee has been working towards maintaining cleanliness in and around the campus. The college basically aims at spreading three messages in the society: **Don’t litter and don’t let anybody else litter, minimize the use of plastic bags, no sticking of posters on walls.**

**(iv) The Practice**

**Eco Club:** The college garden comprises of grassy lawns, herbs, shrubs and trees. There are robust angiosperms of more than 100 varieties growing in Shivaji College, about 450 plants. Shrubs and trees like China rose, Champa, Neem, Semul, Mango, Kadamba, and Ashoka form a green canopy. A wide variety of roses add to the beauty of the campus. A water fall along with many herbal and medicinal plants further enhances the vibrant ambience in the campus. Seasonal plants such as Chrysanthemum, Dahlia, Petunia, Phlox, Calendula, Salvia, Candytuft, Cineraria and Poppy add beauty to the vibrant spring colour while Cochia, Balsam, Sadabahaar, along with Coleus and Crotons enhance the summer colors. The botanical garden caters to the academic and research needs of students and staff alike. In addition, the herbal garden caters to health benefits as well.

The Eco Club with its motto **One World One Environment** organizes *Van Mahotsava* by planting saplings on Teacher’s Day. Various competitions such as Poster Making, Slogan Writing, Know your Garden, and Rangoli Making are organized. Students, teachers and non-teaching staff take a **Pledge to Protect and Plant a Tree** every year. The club also organizes an environmental quiz and debate on Ozone Day. **Annual Eco Meet cum Exhibition** was organized by Department of Environment, NCT of Delhi, on 12<sup>th</sup>-13<sup>th</sup> February, 2013. The regular excursions

enhance the understanding of the native flora and fauna, ecosystems and their importance for sustainable development. The student members have been working tirelessly to educate the youth about environmental concerns. Several drop boxes are placed within the campus to collect paper and e-waste. The club has a paper recycling unit and e-waste collection center. The former is used to make attractive handmade paper.

To promote the conservation and exploration of herbal and medicinal plants, Eco Club organized one day workshop on “**The development of herbal / medicinal garden**” named **Ankuran** on 29<sup>th</sup> January, 2015 which covered the general background, usage and conservation of medicinal plants. The workshop aimed to provide precise knowledge of economic and medicinal use of various common plants growing in wild and cultivated forms around us. The workshop provided comprehensive information about the herbs which are used in day-to-day life and have wide medicinal and economic implications. All the trainees enjoyed this gardening session in scientific and technical way by using specific gardening equipment precisely and turning the piece of land into a herbal garden (**APPENDIX 7.2**).

**Clean Campus Committee:** The college highly appreciates the efforts of the present government and honorable Prime Minister of India, Sh. Narendra Modi, who has raised cleanliness issues at national level. The college sincerely participated in the **Swatchh Bharat Abhiyaan** initiated by the Govt. of India and has undertaken all the possible steps to harness the energy of our students towards the clean India project. Under this mission, the college organized a two-day event on 1<sup>st</sup> - 2<sup>nd</sup> October 2014, during which following activities were carried out:

- More than 700 students and staff members signed on a pledge which said: **I will keep my surroundings clean, I will throw garbage in the dustbin only, and I will not use plastic bags.**
- A talk was organized in the college auditorium on 1<sup>st</sup> October, 2014 with speakers from **Chintan, Environmental Research and Action Group** (an NGO) on the topic “**Environmental issues and E-Waste Management**”. Waste recycling issues were discussed.
- Chintan’s representatives also installed e-waste collection bags in the college to ensure that the hazardous e-waste should go to the formal recycling sector.

- Two competitions (Best out of Waste and Slogan Writing) were held in the college.
- The committee volunteers made beautiful graffiti on the walls of college with messages such as “No littering” and “Use the trash can” etc.
- On Gandhi Jayanti, the college organized a cleanliness drive with the help of MCD workers in which staff members and students were actively involved, in spite of it being a national holiday.

**(v) Evidence of Success**

**Eco-Club:** Students have learnt the technique of paper recycling. Through this process, beautiful, colored handmade paper is made which is used in the college for various purposes. The campus uses fallen leaves to generate manure through vermicomposting. In addition to this, it has a water harvesting facility. The waste water is being used for irrigation.

**Clean Campus Committee:** The committee organized a cleanliness pledge in which all the faculty, students and staff members participated. Everyone picked up the broom and cleaned the whole college campus and the adjoining areas. All the teachers and students were assigned different areas and everyone worked enthusiastically to make the college sparkling clean.

**(vi) Problems Encountered**

**Eco Club:** Water shortage is a major challenge for maintaining vegetation. This challenge can be addressed by recycling water/or by using waste water for irrigation.

**Clean Campus Committee:** It is observed that cleanliness conditions in the college have improved gradually. Students and staff are more aware about clean surroundings but still there is a scope of improvement in imbibing these habits in people’s lifestyle. Consistent and patient approach would definitely bring about a shift in the attitude of society through students and staff alike.

**7.3.1 (b) Best Practice II**

- (i) Title of the Practice:** Sensitizing Women and Creating Gender Awareness
- (ii) Goal :** In every society, women experience inequality. Sensitization, awareness, motivation and gender specific

socialization play an important role to change the behavior of men towards women. It is important to check the menace of declining child sex ratio, create awareness on gender issues, human rights and women-centric laws.

- (iii) **The Context:** Women sensitization and gender awareness refers to the state of knowledge regarding the diversity and variation within the roles and relations of men and women. The diversity and variation between the two sexes results in differences observed in power relations, status, privileges and needs. Gender awareness also necessitates understanding the apparent gender differences in an organization.
- (iv) **The Practice:** Women Development Cell of Shivaji College was constituted in 2003. It is a vibrant and active collaboration of students and teachers who work the entire year to create an open-minded, tolerant and gender sensitized community within campus as well as in the society. Various seminars and conferences are organized at both National and International Level which intend to bring awareness about women related issues. Students are continuously engaged in activities that make them sensitive towards various forms of gender inequality. The college not only recognizes the importance of gender equality but also aims at broadening the dimensions within which these goals are perceived by the society. With the above objectives in mind, WDC organized talks titled “**Literacy: A Gendered Reality**” on Teacher’s Day and “**It’s time we walk for the Girl Child**” on International Day in the year 2012. It launched **Peace People Society** through which students received training from **UPF, FFWPU and WFWP (UN-India acknowledged agencies)** and rescued women to Sudinalay-A Rescue Home for Women in Distress. The First International Conference on Empowerment of Women in Developing Countries was held on 1<sup>st</sup> - 2<sup>nd</sup> April 2013.

Women’s Development Cell of the College released a book titled *Anujivami: I Survive* in the year 2014. The book brings together real life stories of women who survived during tough times and tougher fortunes to transform their life into a tale inspiring millions. This book is a tribute to the undying spirit and emotional resilience of woman. A team of students and teachers undertook this enormous learning exercise where they visited women in various corners of the city from the stony barracks of Tihar Jail; some emerging from the rooms of working women’s hostel and

noisy classrooms of government schools. The stories were gathered from the décor of posh offices of corporate sector and reached the clustered slum colonies of domestic helps. What inspired this book is the untold web of conflicts and struggles that lay beneath the apparent surface of success.

Organ donation is a generous way to gift life. Realizing the importance of this issue an **Organ Donation Awareness Campaign** was organized on 4<sup>th</sup>-5<sup>th</sup> September, 2013 to highlight the noble cause of organ donation. A walkathon **Walk for Life** was organized comprising of approximately 2000 participants. An awareness seminar was also conducted to sensitize the college staff, students and general public regarding the procedures and prospects of organ donation. The college has been proactive in organizing events related to women safety. In this pursuit, the cell organizes a **self-defense workshop** for girls of Shivaji College every year since its inception.

- (v) **Evidence of success:** Events organized by Women's Development Cell draw huge appreciation from all sections of the society. The college was warmly applauded for organ donation awareness campaign by different sections of media. Around 2000 students, staff and public participated in the walkathon and more than 500 people pledged to donate their organs. A panel discussion on sexual abuse organized in the month of February 2014 sensitized the students and suggested effective means to reduce such cases of sexual assaults and finding ways to facilitate timely delivery of justice in such cases. The discussion was followed by presentation of Jijabai Awards and the release of a book (**APPENDIX 7.3**).
- (vi) **Problems Encountered and Resources required:** It was difficult to get sponsorships for campaigns like Organ Donation Awareness. While gathering stories for the Book *Anujivami: I Survive* from women in different spheres of life, it was a challenging task for the students to seek permissions from proper channels. They had to wait for weeks to get appointments.



**EVALUATIVE REPORT OF  
THE DEPARTMENT OF BIOCHEMISTRY**

1. Name of the department: **Biochemistry**
2. Year of Establishment: **1987**
3. Names of Programs / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **B.Sc. (Hons.)**
4. Names of Interdisciplinary courses and the departments/units involved: **Mathematics, Computer Science, Economics, Chemistry, Environmental Studies, English.**
5. Annual/ semester/choice based credit system (program wise): **Semester system**
6. Participation of the department in the courses offered by other departments: **NA**
7. Courses in collaboration with other universities, industries, foreign institutions.: **NA**
8. Details of courses/programs discontinued (if any) with reasons: **FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	5	5
Assistant Professors	3	3

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.)

Name	Qualification	Designation	Specialization	No. of Years of Experience till 2015	No. of Ph.D. Students guided for the last 4 years
Dr. Shashi Nijhawan	Ph.D	Assoc. Professor	Molecular Biology and Enzymology	29 years	-
Dr. Neena Wadehra	Ph.D	Assoc. Professor	Immunology and Integrated Metabolism	28 years	-
Dr. Rashmi Wardhan	Ph.D	Assoc. Professor	Molecular Biology & Integrated Metabolism	33 years	-
Dr. Darshan Malik	Ph.D	Assoc. Professor	Physiology and Endocrinology	28 years	1
Dr. Deepika Bhaskar	Ph.D	Asst. Professor	Genetics and Cell Biology	24 years	-

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Dr. Renu Baweja	Ph.D	Asst. Professor	Physiology and Proteomics	8 years	-
Dr. Sunita Singh	Ph.D	Asst. Professor	Physiology and Enzymology	9 years	-
Ms. Jayita Thakur	M.Sc.	Asst. Professor	Genetics and Cell Biology	2 years	-

11. List of senior visiting faculty: **Nil**
12. Percentage of lectures delivered and practical classes handled (program wise) by temporary faculty (Ad hoc): **10%**
13. Student - Teacher Ratio (program wise): **9:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **sanctioned: 4; filled: 4 (1 adhoc)**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG. **PhD - 7 M.Sc. – 01**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **8 faculties members involved in Innovation project funded by the University of Delhi**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**
18. Research Centre /facility recognized by the University: **Nil**
19. Publications by faculty members:

S. No.	Name of faculty	Title of paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. Database
1.	Dr. Shashi Nijhawan (4 papers)	Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water	Malik D, Singh S, Thakur J, Kishore R, Kapur A, <b>Nijhawan S</b>	International Journal of Science and Research	2014 Vol. 3 (6): 1076-1081	ISSN No: 2319-7706
		Nanocomposite Electrode Microbial Fuel Cell: A Promising Technology for Enhanced	Darshan Malik, Sunita Singh, Jayita Thakur, Raj Kishore Singh, Anita Kapur, Amarjeet	International Journal of Science and Research	2014, Vol. 3(7): 641-646.	ISSN No: 2319-7706

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		Power Generation from Yamuna Water.	Kaur, <b>Shashi Nijhawan</b> , Anil Kumar			
		A Comparative Analysis of the Physico-chemical Properties and Heavy Metal Pollution In Three Major Rivers Across India	Sunita Singh, Darshan Malik, Jayita Thakur, Amarjeet Kaur, Raj Kishore Singh and, <b>Shashi Nijhawan</b>	International Journal of Science and Research	(2014) Vol. 3(8):1936-1941	ISSN No: 2319-7706
		Situating Women in modern Science: The India Scenario	Jayita Thakur, Darshan Malik, <b>Shashi Nijhawan</b> , Sunita Singh	Journal of International Academic Research for Multidisciplinary	2014 Vol. 2 (7), 52-59	ISSN No : 2320-5083
2.	Dr. Rashmi Wardhan (1 papers)	Continuous models of tumor induced angiogenesis and anti-angiogenesis Strategy	Mridula Budhraja, <b>Rashmi Wardhan</b> , Keerti Jain Behera	Interdisciplinary journal of mathematical sciences	2013, Vol 1 (2), 57	(ISSN Print 2278-9561; ISSN Online 2278-957X)
3.	Dr Darshan Malik (7 papers)	Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water	<b>Malik D</b> , Singh S, Thakur J, Kishore R, Kapur A, Nijhawan S	International Journal of Science and Research	2014 Vol. 3 (6): 1076-1081	ISSN No: 2319-7706
		Nanocomposite Electrode Microbial Fuel Cell: A Promising Technology for Enhanced Power Generation from Yamuna Water.	<b>Darshan Malik</b> , Sunita Singh, Jayita Thakur, Raj Kishore Singh, Anita Kapur, Amarjeet Kaur, Shashi Nijhawan, Anil Kumar	International Journal of Science and Research	2014, Vol. 3(7): 641-646.	ISSN No: 2319-7706
		A Comparative Analysis of the	Sunita Singh, <b>Darshan</b>	International Journal of	(2014) Vol. 3(8):1936-1941	ISSN No: 2319-7706

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		Physico-chemical Properties and Heavy Metal Pollution In Three Major Rivers Across India	<b>Malik</b> , Jayita Thakur, Amarjeet Kaur, Raj Kishore Singh and, Shashi Nijhawan	Science and Research		
		Situating Women in modern Science: The India Scenario	Jayita Thakur, <b>Darshan Malik</b> , Shashi Nijhawan, Sunita Singh	Journal of International Academic Research for Multidisciplinary	2014 Vol. 2 (7), 52-59	ISSN No : 2320-5083
		Efficacy of <i>Acinetobacter</i> sp. B9 for simultaneous removal of phenol and hexavalent chromium from co-contaminated system	Amrik Bhattacharya, Anshu Gupta, <b>Darshan Malik</b> , Amarjeet Kaur	Applied Microbiology and Biotechnology	2014 <a href="http://dx.doi.org/10.1007/s00253-014-5910-5">http://dx.doi.org/10.1007/s00253-014-5910-5</a> , (In Press)	ISSN No: 0175-7598
		Identification and Molecular Characterization of Fluorescent Bacteria antagonistic against <i>Exserohilum turcicum</i> based on 16S rDNA Sequences.	Amit Srivastava, Rajesh Singh, <b>Darshan Malik</b>	Journal of Biotechnology and Crop Sciences	2014, Vol. 3(4): 30-46	ISSN No: 2349-9885
		Insulin induces fatty acid desaturase expression in human monocytes	Ingerid Arbo, Cathinka Halle, <b>Darshan Malik</b> , Hans-Richard Brattback, Berit Johansen	Scandinavian Journal of Clinical & Laboratory Investigation.	2011, Vol. 71 (4), pg 330-339	InformaHealthcare. ISSN: 0036-5513 (print), 1502-7686 (electronic)

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4.	Dr. Sunita Singh (4 papers)	Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water	Malik D, <b>Singh S</b> , Thakur J, Kishore R, Kapur A, Nijhawan S	International Journal of Science and Research	2014 Vol. 3 (6): 1076-1081	ISSN No: 2319-7706
		Nanocomposite Electrode Microbial Fuel Cell: A Promising Technology for Enhanced Power Generation from Yamuna Water.	Darshan Malik, <b>Sunita Singh</b> , Jayita Thakur, Raj Kishore Singh, Anita Kapur, Amarjeet Kaur, Shashi Nijhawan, Anil Kumar	International Journal of Science and Research	2014, Vol. 3(7): 641-646.	ISSN No: 2319-7706
		A Comparative Analysis of the Physico-chemical Properties and Heavy Metal Pollution In Three Major Rivers Across India	<b>Sunita Singh</b> , Darshan Malik, Jayita Thakur, Amarjeet Kaur, Raj Kishore Singh and, Shashi Nijhawan	International Journal of Science and Research	(2014) Vol. 3(8):1936-1941	ISSN No: 2319-7706
		Situating Women in modern Science: The India Scenario	Jayita Thakur, Darshan Malik, Shashi Nijhawan, <b>Sunita Singh</b>	Journal of International Academic Research for Multidisciplinary	2014 Vol. 2 (7), 52-59	ISSN No : 2320-5083
5.	Ms. Jayita Thakur (4 papers)	Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water	Malik D, Singh S, <b>Thakur J</b> , Kishore R, Kapur A, Nijhawan S	International Journal of Science and Research	2014 Vol. 3 (6): 1076-1081	ISSN No: 2319-7706
		Nanocomposite Electrode Microbial Fuel Cell: A Promising Technology for Enhanced	Darshan Malik, Sunita Singh, <b>Jayita Thakur</b> , Raj Kishore Singh, Anita Kapur, Amarjeet	International Journal of Science and Research	2014, Vol. 3(7): 641-646.	ISSN No: 2319-7706

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		Power Generation from Yamuna Water.	Kaur, Shashi Nijhawan, Anil Kumar			
		A Comparative Analysis of the Physico-chemical Properties and Heavy Metal Pollution In Three Major Rivers Across India	Sunita Singh, Darshan Malik, <b>Jayita Thakur</b> , Amarjeet Kaur, Raj Kishore Singh and, Shashi Nijhawan	International Journal of Science and Research	(2014) Vol. 3(8):1936-1941	ISSN No: 2319-7706
		Situating Women in modern Science: The India Scenario	<b>Jayita Thakur</b> , Darshan Malik, Shashi Nijhawan, Sunita Singh	Journal of International Academic Research for Multidisciplinary	2014 Vol. 2 (7), 52-59	ISSN No : 2320-5083

Publication per faculty - **2.5**

Number of papers published in peer reviewed journals (National/ International) by faculty and students after 2009- till 2014- **20 papers**

**Chapters in books written by faculty members:**

S. No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year, Page No., issue	Publisher /ISSN No. / Int. database
1	<b>Chapter :</b> Empowering Women: The Indian Socio-Cultural Scenario <b>Book :</b> Women & Disaster Management.	Dr. Darshan Malik, Dr. Shashi Nijhawan and Dr. Amarjeet Kaur	Dr. Shashi Nijhawan, Dr. Amarjiva Lochan, Dr. Darshan Malik	2014	Pragun Publication (A D K Publishers Distributors Enterprise), New Delhi ISBN No. 9789380397498
2	<b>Chapter :</b> An Application of Logistics Regression to Study Women Empowerment and Sex Discrimination <b>Book :</b> Women & Disaster Management	Dr. Rashmi Wardhan, Dr. Mridula Budhraj	Dr. Shashi Nijhawan, Dr. Amarjiva Lochan, Dr. Darshan Malik	2014	Pragun Publication (A D K Publishers Distributors Enterprise), New Delhi ISBN No. 9789380397498

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3	Nucleic Acid, Paper IV, (FYUP) Fundamentals of Plant Biochemistry, Semester-2, DC-I, B.Sc. (H) Botany	Renu Baweja	Open Educational Resource by University of Delhi.	2014	-
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**Books edited by faculty members:**

S. No.	Books edited	Editor	Volume No. year, Page No., issue	Publisher /ISSN No. / Int. database
1	Women & Disaster Management.	Dr. Shashi Nijhawan, Dr. Amarjiva Lochan, Dr. Darshan Malik	2014	Pragun Publication (A D K Publishers Distributors Enterprise), New Delhi ISBN No. 9789380397498

20. Areas of consultancy and income generated: **Nil**

21. Faculty as members in

(a) National committees:

Name of Faculty Member	National Committee
Dr. Shashi Nijhawan	1. The Indian Science Congress Association, 2. The Society of Crop Scientists and Biotechnologists
Dr. Neena R. Wadehra	1. Association of Clinical Biochemists of India (ACBI) 2. Society of Biological Chemists of India. (SBCI) 3. Indian College of Allergy & Applied Immunology.(ICAAI) 4. Indian Immunology Society. (IIS) 5. Biotechnology Society of India.(BSI) 6. Association of Teachers in Biological Sciences. (ATBS)
Dr. Rashmi Wardhan	1. Society of biological chemists of India
Dr. Darshan Malik	1. The Indian Science Congress Association, 2. The Society of Crop Scientists and Biotechnologists

(b) International Committees: **Nil**

(c) Editorial Boards :-

Name of Faculty Member	Editorial Board
Dr. Shashi Nijhawan	Journal of Biotechnology and Crop Sciences
Dr. Darshan Malik	Journal of Biotechnology and Crop Sciences

22. Student projects

(a) Percentage of students who have done in-house projects including inter departmental/program: **20%**

(b) Percentage of students placed for projects in organizations

outside the institution i.e.in Research laboratories/Industry/ other agencies: **5%**

23. Awards / Recognitions received by faculty and students

Dr. Shashi Nijhawan, Dr. Darshan Malik, Dr. Anita Kapoor Dr. Sunita Singh, Ms.. Jayita Thakur,	Awarded certificate of appreciation for “Best display” of poster under the theme “Environmental issues” in Antardhwani 2015	2015
Dr. Neena R. Wadehra, Dr. Deepika Bhaskar, Dr Vanshika Lumb, Dr. Smriti Babbar	Awarded certificate of appreciation for “Best display” of poster under the theme "Scientific Arena" in Antardhwani 2015	2015
Dr. Shashi Nijhawan, Dr. Darshan Malik, Dr. Sunita Singh, Ms. Jayita Thakur,	Best Poster presentation on "Epilepsy" at EPICON, the international conference on Epilepsy, SGTB Khalsa College.	2014
Dr. Shashi Nijhawan, Dr. Anita Kapur, Dr. Darshan Malik, Dr.Sunita Singh, Ms. J.Thakur,	Best Paper presentation “Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water” IC-LIFE International Conference on Life Sciences, Informatics, Food and Environment, Organized by Jaypee Institute of Information & Technology, Noida	2014

24. List of eminent academicians and scientists / visitors to the department:

1. **Prof. Anil Kumar Tyagi**, Vice Chancellor, GGS IP University of Delhi.
2. **Prof. S. C. Lakhotia** Department of Zoology, Banaras Hindu University, Varanasi.
3. **Dr. Sunil Mukherjee**, International Centre for Genetic Engineering and Biotechnology, New Delhi.
4. **Dr. Beena Pillai**, Institute of Genomics and Integrative Biology, New Delhi.
5. **Dr. Vijaya Gopal**, Centre for Cellular and Molecular Biology, Hyderabad.
6. **Dr. Kumarvel Somasundaram**, Dept.of Microbiology and Cell Biology, Indian Institute of Sciences, Bangalore.
7. **Prof. K. Natarajan**, School of Life Sciences, JNU, New Delhi.
8. **Dr Swati Subodh**, the Centre for Genomic Application, New Delhi.



9. **Prof. Indranil Dasgupta**, Department of Plant Molecular Biology, University of Delhi, South Campus, New Delhi.
10. **Dr. Arnab Mukhopadhyay**, National Institute of Immunology, New Delhi.
11. **Prof. Vinay Nandicoori**, National Institute of Immunology, New Delhi.
12. **Prof. Usha Vijaya Raghavan** from IISc, Bangalore,
13. **Prof. Salunke Dinakar**, Executive Director, Regional Centre for Biotechnology
14. **Dr. Himanshu Pathak**, Senior Scientist IARI
15. **Dr. Devesh Sharma**, Associate Professor, TERI
16. **Dr. Gopal C. Kundu**, Scientist C, National Centre for Cell Science, Pune.
17. **Dr. Gauri Kapoor**, Department of Pediatric Haematology/ Oncology and BMT, Rajiv Gandhi Cancer Research institute, Delhi
18. **Dr. Shelly Praveen**, Senior Scientist, Division of Plant Pathology, IARI, Newserach Centre, Chennai
19. **Dr. Suman Kumar Dhar**, Associate Professor, School of Molecular Medicine, JNU, Delhi
20. **Prof. R.P.Singh** Department of Biotechnology, IIT Roorkee
21. **Prof. Madhu Dixit**, Division of Pharmacology, Scientist in charge, Cardiovascular Pharmacology Unit, central Drug Research Institute Lucknow.
22. **Dr. Sridhar Sivasubbu**, Institute of Genomics and Integrative Biology, Delhi.
23. **Dr. Reeta Goel**, , department of Microbiology, G.B.Pant university of Agric.& Technology, PantNagar, Uttrakhand.
24. **Prof. Subeer S. Majumdar** Embryo Biotechnology Laboratory, NII, delhi
25. **Prof. M Sudhakara Reddy**, Departmnet of Biotechnology, Thapar University, Patiala.
26. **Prof. B K . Thelma**, Department of Zoology, University of Delhi.

27. **Dr. Saurabh Raghuvanshi**, Department of Plant Molecular Biology, University of Delhi.
28. **Prof. Rajesh Kumar Gokhale**, Director, CSIR-IGIB
29. **Prof. Umesh Varsheny**, Department of Microbiology and cell biology, IISc. Bangalore
30. **Prof. Akhil C. Banerjea**, Staff Scientist VI, Laboratory of Virology, NII, Delhi
31. **Prof. B.S. Dwarkanath**, Additional Director. Division of Radiation Biosciences, INMAS, delhi
25. Seminars/ Conferences/Workshops organized & the source of funding: National/International

**National**

S. No.	Name/Title	Funding agency
1	Bioconvergence, 2014	Shivaji College
2	National Symposium on cell and Molecular Biology, 2009	ICMR, DBT, CSIR, Central Bank of India
3	RNAomics: Isolation to interference, 2010	ICMR, DBT, CSIR, UGC, Vishal Jewellers, IOC, DST, Andhra Bank, Medox, Roche

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass Percentage
			*M	*F	
2010-11		07	03	04	100%
2011-12		14	06	08	92.85%
2012-13		15	06	09	60%
2013-14		32	15	17	56.25%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	56%	44%	-
2011-12	88.88%	11.11%	-
2012-13	93.75%	6.25%	-
2013-14	75%	25%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc. **Defense Services 02**

29. Student progression need information (**No documentation**)

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30 Details of Infrastructural facilities

a) The library of the college is well connected with the Wifi network of the University of Delhi server. The INFLIBNET has an access to numerous of e journals available. The college library has many books/ journals/ magazines/ protocol manuals available to the students and the teachers. The library adds new books and journals as suggested by different departments every year. The library has OPAC (name cataloging facility) facilities. All the books have been catalogued manually as well as electronically. The library has the separate section where computer facility both for faculties and students for accessing e-journals is available.

b) **Internet facilities for Staff & Students:** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purpose. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work.

c) **Class rooms with ICT facility**

The class rooms have interactive learning facility of LCD projector. The computers do have internet connectivity. The Department has three 3-in-1 printers (with printer, scanner and photocopier property, two black and white and one colored) available for both teachers and students for taking print outs and scanning the important documents on the emergency basis.

d) **Laboratories**

The department has a well maintained lab with equipments like PCR Thermocycler, ELISA reader, spectrophotometers, Gel electrophoresis apparatuses for DNA and proteins, Western blotting apparatus, high speed refrigerated centrifuges, clinical microfuge, Microbiological laminar air flow, BOD incubator, -20 °C deep freezer, Stereo Microscopes with 100 X magnification .

31. Number of students receiving financial assistance from college, university, government or other agencies : **2**

32. Details on student enrichment program (special lectures / workshops / seminar) with external experts:

August 2014, January 2011 - Second and Final year students were taken for a study tour to the **National Brain Research Centre**, India

January 2014- Visit and talk by **Dr. Y Singh, IGIB** to the department to discuss the innovation project SHC 205 progress and plan of work for Milk adulteration and its effect on young population

February 2014:-Visit and talk by **Dr. Anil Kumar, Director, Department of Environment Delhi Govt.** to discuss innovation project SHC 203 progress and plan future work plans.

December 2013: Ten students attended a two day workshop on the role of **Bioinformatics in Drug discovery** organized by Open Source Drug Discovery in collaboration with **IGIB- CSIR Institute**, South Campus, Delhi

June 2012: Three students of the Department of Biochemistry attended summer trainings in the **Rajiv Gandhi Cancer Hospital**. Two other students went to **All India Institute of Medical Sciences** (June 2012)

October 2012: Six students visited **The Centre for Genome Analysis (TCGA)**, New Delhi to attend a comprehensive lecture by experts on the Microarray technique on different aspects of the subject followed by a hands-on-experience session

October 2010: The department organized a National **Workshop on RNAomics - Isolation to Interference**

33. Teaching methods adopted to improve student learning

**Interactive learning through LCD projections**

We have adopted a general instructional practice that transcends the

traditional classroom confined, teacher–centric methodology. The classrooms and labs have LCD projectors with high end configured laptops for powerpoint presentations required for teaching. The department also has facility to project books whenever computer forms of the books are unavailable. The department has high speed internet connectivity through WiFi enabled systems to provide all time internet facility. In the classroom teaching, teachers make sure to revise the previous topics to maintain continuity of the subject and encourage students for their doubt clearance by asking the questions. The videos explaining the special topics are downloaded from the internet so that the students can understand the concept better. Students are also given with the assignments to encourage library visits so that they refer different books to complete them. The assignments are also given in the form of the topics where powerpoint presentations can be made and class seminar are held so that the fellow students can ask the questions. Special 45 minutes tutorials are also part of the timetable where students can interact freely with the teachers for clearing their doubts. Teachers encourage the students to appear for the weekly tests. Educational visits are also organized time to time for the students to have a gist of the research labs and departments of the different institutes. Literary programs are also organized in the annual science festivals to build up the student’s interest in the subject.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The faculty and students of Biochemistry who organized a sensitization camp on **Yamuna awareness: a Shivaji College initiative** in association with GGS, IP University, at the Okhla Barrage. It focused on creating awareness among the residents regarding the load of heavy metals and microbes in the river.

They were also involved in analyzing the **quality of milk** available in the locality. They made kits to detect levels of impurities in milk samples.

35. SWOC analysis of the Department of Biochemistry

The Department of Biochemistry at Shivaji College was established in 1987 and has all the basic infrastructural facilities to meet the requirements for teaching and research.

### **Strengths**

- The faculty is dynamic, experienced and passionate towards teaching and research. They have obtained degrees PhD/Post Doctorate fellowships from institutes of national acclaim.
- All eight members of the faculty are involved in interdisciplinary research which are funded by the University of Delhi. Research findings are published in journals of national/international repute.
- The Faculty has a focused approach towards guiding the students in understanding the concepts of the syllabi and recent advances in the field of science.
- The department organizes invited lectures, workshops and conferences on regular basis.
- The students are encouraged to attend seminars/ conferences/ summer training programs and workshops to enhance their exposure to science and keep them abreast with the latest tools and techniques.
- The faculty is encouraged to enhance their teaching skills and scientific temper by attending refresher/orientation courses, seminars, conferences and workshops.
- The skills of the technical staff is also regularly updated through Lab-skill training workshops etc.

### **Weakness**

- The maintenance of the existing instruments on regular basis is required through an Annual Maintenance Contract.
- There is a constraint of laboratory space and also the need for certain equipments to carry out specialized experiments.
- The need of more computers for the students to complete their assignments and presentations.

### **Opportunities.**

- The students are involved in various interdisciplinary research which allows them to interact with their fellow students from other courses.
- Lab to land initiatives by the department has given the students an opportunity to generate an awareness of relevant issues like milk adulteration, metal toxicity in Yamuna etc.
- Increasing number of students wish to pursue biochemistry due to

demand in industry and academia. The medical research is constantly in need of good scientist and technicians. The research skills of the students are well developed, thus enabling them to gain admission in premier institutions for higher education.

- Students of Biochemistry have the opportunity to enroll for M.Sc. courses in fields other than Biochemistry, eg. Genetics, Biotechnology, Cell Biology, Molecular Biology etc

**Challenges**

- Identify area where we can pioneer and be a resource to the University.
- Alumni partnership in motivating students is required.
- Shortage of funds to conduct Molecular Biology/Immunology practicals, as the chemicals/kits used are very expensive.

## EVALUATIVE REPORT OF THE DEPARTMENT OF BOTANY

1. Name of the department: **Department of Botany**
2. Year of Establishment: **1973**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **Undergraduate courses- B.Sc. (Hons.) Botany, B.Sc. (Life Sciences)**
4. Names of Interdisciplinary courses and the departments/units involved: **B.Sc. (Zoology), B.Sc. (Chemistry), B.Sc. (Physical Science) and B.Sc. (Applied Physical Sciences)**
5. Annual/ semester/choice based credit system (programme wise): **Semester**
6. Participation of the department in the courses offered by other departments: **Zoology, Chemistry, Physical Sciences and Applied Physical Sciences**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.: **Not Applicable**
8. Details of courses/programmes discontinued (if any) with reasons: **FYUP has been discontinued by the University of Delhi.**
9. Number of Teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	11	2
Asst. Professors		9 (Permanent) + 4 (Adhoc Teachers)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc., )

Name of faculty	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Geeta Sharma	Ph.D	Associate Professor	Mycology Plant Taxonomy	37 years	-
Dr. Anuradha Mal	Ph.D	Associate Professor	Reproductive. Biology & Cell Biology	29 years	-
Dr. Anita Kapur	Ph.D	Associate Professor	Plant Diversity Cell Biology	24 years	-



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Dr. Vijay Kumar	M.Phil Ph.D	Assistant Professor	Restoration Ecology	9 years	-
Dr. Pratima Rani Sardar	Ph.D	Assistant Professor	Ecology Plant Physiology	9 years	-
Dr. Manju Balhara	Ph.D	Assistant Professor	Plant Anatomy	8 years	-
Dr. Prabhavathi V.	Ph.D	Assistant Professor	Molecular Biology Genetics	6 years	-
Dr. Smita Tripathi	Ph.D	Assistant Professor	Plant Physiology & Biochemistry, Applied Microbiology (Food Quality Control)	1 year	-
Dr. Kiran Bamel	Ph.D	Assistant Professor	Plant Tissue Culture Molecular Biology Genetics	7 years	-
Dr. Misha Yadav	Ph.D	Assistant Professor	Plant Physiology. & Biochemistry	2 years 5 months	-
Dr. Seema Talwar	Ph.D	Assistant Professor	Embryology of Angiospers	5 years	-
Dr. Pamil Tayal	Ph.D	Assistant Professor	Molecular. Biology. Bioinformatics	2 years	-
Dr. Gaurav Kumar	Ph.D	Assistant Professor	Algae	3 months	-

11. List of senior visiting faculty: **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **38%**
13. Student -Teacher Ratio (programme wise): **15:1 (in Hons.) and 20:1 (in Life Sc.)**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **1 lab assistant and 5 lab attendants**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.: **All faculty members are doctoral degree holders (Ph.D.)**

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:

**Five faculty members with ongoing projects funded by National body.**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**

18. Research Centre /facility recognized by the University: **Nil**

19. Publications:

a) Publication per faculty : **1.46**

b) List of Research Publications in refereed Journals

S. No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. Database
1	Pollination biology of Terminalia chebula Retz. in Delhi and Western Ghats	S. Talwar and A.K. Bhatnagar	The International Journal of Plant Reproductive Biology	2014, 6(2) : 181-194	DOI 10.14787/ijprb.2014.6.2. ISSN Print : 0975-4296 ISSN Online: 2249-7390
2	Micropropagation and validation of genetic and biochemical fidelity amongst regenerants of Cassia angudyifolia Vahl employing RAPD marker and HPLC.	S. K. Chetri, Pratima Rani Sardar and Veena Agrawal	Physiology	2014, Vol.20, Oct 2014, pp. 517-526	Springer, 0971-5894
3	Microbial Fuel Cell: Harnessing Bioenergy from Yamuna Water	Malik D, Singh S, Thakur J, Kishore R, Kapur A, Nijhawan S	Int J Sci Res.	2014, 3 (6), 1076-1081	Elsevier/ 0024-3205
4	A Review – Enhancement of artemisinin concentration in Artemisia annua	Meena K, Tayal P	International journal of Medicinal Plants	2014, (accepted )	Elsevier
5	Analyses of genetic and pathogenic variability in isolates of Botrytis cinerea	Kumari S, Tayal P and Kapoor R	Microbiological research	2014	Elsevier
6	Strigolactones: A Wonder Molecule - Journey from	Tripathi, S and Bharti, N.	The Botanica	2012, 62: 134 - 147.	ISSN No: 0045-2629

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	Redundant Substance to the Essential Phytohormone controlling diverse functions in plants.				
7	Localization of lipooxygenase activity on oil bodies and in protoplasts using a novel fluorescence imaging method.	Yadav MK and Bhatla SC	Plant Physiology and Biochemistry	2011, 49: 230-234	0981-9428
8	Modeling and Optimization of Enzymatic Degradation of Aflatoxin B1 (AFB1) in Red Chili Powder Using Response Surface Methodology.	Tripathi, S and Mishra, HN.	Food Bioprocess Technology	2011, 4:770-780.	Springer, ISSN: 1935-5130
9	Temporal and spatial analysis of lipid accumulation, oleosin expression and fatty acid partitioning during seed development in sunflower ( <i>Helianthus annuus</i> L.).	Kaushik V, Yadav MK and Bhatla SC	Acta Physiologicae Plantarum	2010, 32: 199-204	0137-5881
10	Use of oil bodies and oleosins in recombinant protein production and other biotechnological applications.	Bhatla SC, Kaushik V and Yadav MK	Biotechnology Advances	2010, 28: 293-300	0734-9750
11	Enzymatic coupled with UV degradation of Aflatoxin B1 in red chili powder.	Tripathi S and Mishra HN.	Journal of Food Quality	2010 33: 186-203.	Wiley Blackwell, USA ISSN: 1745-4557
12	Biological Control of vascular wilt in tomato caused by <i>Fusarium oxysporum</i>	Tayal P, Kapoor R and Bhatnagar AK	Journal of Plant Pathology	2011	Elsevier

**Non-refereed but recognized and reputable journals and periodicals**

S. No.	Title of Paper	Author	Journal	Vol. No. year, Page No.	Publisher /ISSN No. / Int. database
1	Bioremediation of wastewater using algae	Anuradha Mal	The Botanica	58:1 (2010)	ISSN 0045-2629
2	Strigolactones: A Wonder Molecule - Journey from Redundant Substance to the Essential Phytohormone controlling diverse functions in plants.	Smita Tripathi	The Botanica	62: 134 - 147.	ISSN No: 0045-2629

**List of Books, chapters and reading material.**

S.No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year, Page No., issue	Publisher /ISSN No. / Int. database
1	Reading Material- Polymerase Chain Reaction	V.Prabhavathi	Dr. Parul Agarwal	2014	2349-154X
2	Chapter : titled Megasporeangium and Female Gametophyte for Virtual Learning Environment of Institute of Life Long Learning, University of Delhi	Dr. Anuradha Mal	Dr. Inderdeep Kaur (Khalsa College)	2013	

20. Areas of consultancy and income generated: **N.A.**

21. Faculty as members in

- National committees:
  - Dr. Vijay Kumar: Life Member of Indian Science Congress Association; Life Member of Association of Teachers in Biological Sciences.
  - Dr. Pratima Rani Sardar: Life Member Delhi University Botanical Society.

- Dr. Smita Tripathi: Life Member Delhi University Botanical Society.
  - Dr. Misha Yadav: Life Member Delhi University Botanical Society.
  - Dr. Pamil Tayal: Life Member Delhi University Botanical Society.
  - Dr. Prabhavathi: Life Member, Delhi University Botanical Society.
  - International Committees:
    - Dr. Vijay Kumar: Life Member of the International Society of Plant Morphologists.
    - Dr. Seema Talwar: International Journal of Plant Reproductive Biology.
- c) Editorial Boards.... **Nil**
22. Student projects:
- a) Percentage of students who have done in-house projects including inter departmental/programme: **NIL**
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **NIL**
23. Awards / Recognitions received by faculty and students
- Misha Yadav, Best Presenter Award – 2015, at national Conference held Goa.
  - Kiran Bamel, Best Poster Award-2014, at International Conference on Epilepsy – EPICON’-14 held at Khalsa College, DU.
  - Smita Tripathi, Best Article Award – 2012-13 in Botanica.
  - Smita Tripathi, DST-SERB Young Scientist Fellowship, 2012
  - Anuradha Mal, post-doctoral fellowship to undertake research at NTNU, NORWAY. 2010 & 2011.
  - Anuradha Mal, Erasmus Mundus fellowship as academic staff exchange to work in National University of Science and Technology, Norway. 2009-2010.

## 24. List of eminent academicians and scientists / visitors to the department

The number of Invited speakers	March 2012	April 2013	January 2014
Their Names and affiliations	<p><b>1. Dr. P.S.Ahuja</b> Director, IHBT, Palampur, Himachal Pradesh</p> <p><b>2. Dr. S.Natesh</b> Dept. of Biotech., Ministry of Science &amp; Tech., CGO Complex, Lodhi Road, New Delhi</p> <p><b>3. Prof. H.Y. Mohan Ram</b> INSA, Honorary Scientist</p> <p><b>4. Prof. K.C.Bansal</b> NBPGR, IARI, New Delhi</p> <p><b>5. Dr. Suman Lakhanpaul</b> Associate Prof., Botany Dept., Delhi Univ., Delhi</p> <p><b>6. Prof. Anil Grover,</b> Dept. of PMB, Univ. of Delhi South Campus, New Delhi</p> <p><b>7. Prof. M. K. Pandit</b> Dept. of Environmental Biology, Delhi Univ., Delhi</p> <p><b>8. Prof. Rani Gupta</b> Dept. of Microbiology, Univ. of Delhi South Campus, New Delhi</p> <p><b>9. Dr. Vibha Dhawan</b> Executive Director, TERI, Lodhi Road, New Delhi</p> <p><b>10. Prof. Paramjeet Khurana</b> Dept. of PMB, Univ. of Delhi South Campus, New Delhi</p> <p><b>11. Dr. K. Gopinath</b> Associate Professor, Dept. of Plant Sciences, Univ. of Hyderabad, Hyderabad</p> <p><b>12. Prof. Usha Vijayraghavan</b> Dept. of Microbio. &amp; Cell Bio., IISC, Banglore</p> <p><b>13. Prof. M. V. Rajam</b> Dept. of Genetics, Univ. of Delhi South Campus, New Delhi</p> <p><b>14. Dr. Arun Jagannath</b> Associate Prof., Botany Dept., Univ. of Delhi South Campus, New Delhi</p>	<p><b>1. Dr. Rajendra Gupta</b> Formerly Associate Professor, Department of Botany, University of Delhi, North Campus, Delhi</p> <p><b>2. Dr. S.B. Babbar</b> Professor, Department of Botany, University of Delhi, North Campus, Delhi</p>	<p><b>1. Prof. Rajesh S. Gokhale</b></p> <p><b>2. Prof. A.K. Tyagi</b></p> <p><b>3. Prof. Thelma</b></p> <p><b>4. Dr. Saurabh Raghuvanshi</b></p>

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	<b>15. Dr. Saurabh Raghuvanshi</b> Assistant Prof., Dept. of PMB, Univ. of Delhi South Campus, New Delhi		
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25. Seminars/ Conferences/Workshops organized & the source of funding

**a) National:**

Department of Botany, Biochemistry, Chemistry, Zoology 16- 18 July, 2014	'Workshop for Laboratory assistant/attendants of Chemical and Life Sciences'	Source Funding : Shivaji College
Department of Botany January 2011- 2012	National Symposium on "Frontiers and Avenues in Plant Sciences"	Source Funding : DST, DJB, ICMR, CSIR

**b) International**

Dr. Anuradha Mal	Awarded Erasmus Mundus fellowship as academic staff exchange to work in National University of Science and Technology, Norway. 2009-2010.
	Awarded post doctoral fellowship to undertake research at NTNU, NORWAY. 2010 & 2011.

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		19	08	11	63.15%
2011-12		24	10	14	79.16%
2012-13		23	11	12	56.52%
2013-14		25	07	18	48%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	57.44	42.55	-
2011-12	62.06	37.93	-
2012-13	75	25	-
2013-14	56.14	43.85	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? **No Documentation**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	-
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi has provided computer with internet facility in the Department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projector.
- d) **Laboratories:** The Department has three laboratories (with Projection facility in 2 labs.) and one preparation room. The labs are well equipped. Instruments and equipment like autoclave(vertical), COD Digestion system, centrifuge, ice flaking machine, deep freezer, distillation unit, electrophoresis unit, laminar flow UV spectrophotometer, Trans-illuminator, Visualizer and a no of microscopes(Dissecting, Monocular, Binocular and with image projection system) are present in these labs.

31. Number of students receiving financial assistance from college, university, government or other agencies - **09**

32. Details on student enrichment programmes (special lectures / workshops/ seminar) with external experts: A number of eminent scientist and resource persons have interacted with students refer to list provided in Q.24.



33. Teaching methods adopted to improve student learning: **Power point Presentations, Field trips, Botanical excursions and visit to research laboratories of other institutes to impart practical implementation of theoretical knowledge.**
34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **NIL**
35. SWOC analysis of the department and Future plans\

#### **STRENGTH**

- Highly qualified faculty members (all are Ph. D).
- The faculty members are well experienced in teaching and in research.
- Besides teaching the faculty members are also involved in different projects funded by DST and University of Delhi.
- Modern technologies and techniques are used to deliver lectures and to hold practicals.

#### **WEAKNESS**

- Constraints of high quality research facilities.
- Lack of proper infrastructure results in constraints in teaching.

#### **OPPORTUNITIES**

- The present course curriculum promotes students to take research opportunities available to them in various fields.
- There is a boom in the biotechnology industry creating immense opportunities for the students.

#### **CHALLENGES**

- Integrated research and teaching programme can be opted at undergraduate level that will provide practical experience to students at this platform.
- Providing support to students towards research becomes a huge challenge for the department due to limited infrastructure and other facilities.

## EVALUATIVE REPORT OF THE DEPARTMENTS OF BUSINESS ECONOMICS

The Self-evaluation of every department may be provided separately in about 3-4 pages, avoiding the repetition of the data.

1. Name of the department: Department of Business Economics
2. Year of Establishment: **2005**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) **UG/ B.A. (Hons.) Business Economics**
4. Names of Interdisciplinary courses and the departments/units involved/**Environmental Studies/ Botany.**
5. Annual/ semester/choice based credit system (programme wise)/**Semester**
6. Participation of the department in the courses offered by other departments/ **No**
7. Courses in collaboration with other universities, industries, foreign institutions, etc./**No**
8. Details of courses/programmes discontinued (if any) with reasons/ **B.A. (Hons.) Business Economics discontinued in 2013 and started again in 2014.**
9. Number of Teaching posts

	Sanctioned	Filled
Professors	NIL	-
Associate Professors	3	-
Asst. Professors		3

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Urvashi Sahitya	M.Phil.	Asst. Prof.	Finance/Accounts/ Law	11	-
Abhishek Kumar	M.Phil.	Asst. Prof.	Statistics /Finance	4	-
Parul Behl	M.Com	Asst. Prof.	Economics/Finance/ Marketing	4	-

11. List of senior visiting faculty - **NIL**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty – **N.A**
13. Student -Teacher Ratio (programme wise) - **36:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled – **N.A**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG./

Highest qualification	Professor		Associate Professor		Assistant Professor	
	Male	Female	Male	Female	Male	Female
<b>Adhoc Faculty</b>						
M.Phil.					01	1
P.G.						1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

S. No.	Name of faculty	Ongoing project	Funding agency Grant received	Year
1.	Abhishek Kumar	Two Audits of Queen Elizabeth Hospital NHS Foundation Trust	N/A	2014
3	Abhishek Kumar	University Grants Commission	N/A	2014

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:- **NIL**
18. Research Centre /facility recognized by the University:- **NIL**
19. Publications:
  - a) Publication per faculty: - **4.6**
  - b) List of Research Publications in refereed Journals

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<b>S. No.</b>	<b>Title of Paper</b>	<b>Authors</b>	<b>Journal</b>	<b>Volume No. year, Page No.</b>	<b>Publisher /ISSN No. / Int. database</b>
1	Bank Lending Channel in India: "A Comparison of Pre-reform and Post reform Period	Abhishek Kumar	International Journal of Commerce, Business and Management	Vol 3 (1); 132-140	ISSN 2319-2828
2	Exchange Rate pass through in India	Abhishek Kumar	International Journal of Business and Management Invention,	Vol 3(2); 29-43	ISSN 2319 – 8028
3	Sustainability in Indian Banking Industry: A Case Study Approach	Urvashi Sahitya (First Author)	International Journal of Commerce, Business and Management.	2014, Vol 3(1); 220-229	ISSN 2319-2828
4	Motivational Aspects of Modern Woman Employee in Delhi	Urvashi Sahitya	Issue. International Journal of Management, IT and engineering;	2014, Vol 4 (5) 214-226	ISSN 2249-0558
5	Impact of analysts' recommendations on stock returns	Parul Behl	Indian Journal of Commerce	Vol.67 No. 1, Jan-March, 2014	ISSN: 0019-512X
6	Are entrepreneurs born or made?	Parul Behl	Aap ke shabd	Vol.2, Issue.8, March 2014	ISSN:2347-7598
7	How effective analysts' recommendations are?	Parul behl	Aap ke shabd	Vol.2 Issue.8, March 2014	ISSN:2347-7598

**Non-refereed but recognized and reputable journals and periodicals**

S. No.	Title of Paper	Author	Journal	Vol. No. year, Page No.	Publisher /ISSN No. / Int. database
1	Competition for inefficiency “An Indian Perspective”	Abhishek Kumar and Sreekutty Mohandas	Mainstream Weekly		ISSN 0542-1462
2	India Rupee In Crisis	Abhishek Kumar	<a href="http://www.voxeu.org/debates/commentaries/indian-rupee-crisis">http://www.voxeu.org/debates/commentaries/indian-rupee-crisis</a>		

**List of Books, chapters and reading material.**

S.No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year, Page No., issue	Publisher /ISSN No. / Int. database
1	On Some Aspects of Monetary Policy & Transmission in India,	Abhishek Kumar	Abhishek Kumar	Under Publication	Lambert Academic Publishing ISBN 978-3-659-19760-4 (Under Publication)
2	Business, Entrepreneurship and Management	Parul Behl, Vibhash Kumar	Vikash Kumar	2014	Galgotia Publishing Company ISBN:81-8218-055-4
3	The performance of Public Sector Banking Industry in India (1992-2003)	Urvashi Sahitya	-	2013	Pragun Publication ISBN 978-93-80397-46-7
4	Mergers & Acquisitions In Indian Banking Sector: Basics, Concepts & Analysis	Rachit Sachdeva & Neeraj Garg (Students)	-	2013	Lambert Academic Publishing ISBN: 9783659334061
5	Indian Sugar Industry: Production Estimator	Gaurav Kalra (Students)	-	2013	Lambert Academic Publishing ISBN: 9783659334061

20. Areas of consultancy and income generated - **NIL**
21. Faculty as members in
- a) National committees
  - b) International Committees
  - c) Editorial Boards....**NIL**
22. Student projects
- a) Percentage of students who have done in-house projects including inter departmental/programme/ 100%
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - **NIL**
23. Awards / Recognitions received by faculty and students- **NIL**
24. List of eminent academicians and scientists / visitors to the department

<b>Name</b>	<b>Organization</b>
Dr. Subramanian Swamy	Ex. President Janta party
Mrs. Brinda Karat	(Member, Politburo, CPI (M)),
Nirmala Sitharaman	Union Minister of Commerce and Industry
Mr. Ajay Maken	(Former Hon'ble Minister for Poverty Alleviation & Urban Development),
Prof. Yogendra Yadav	(Eminent Social Scientist, Member Aam Aadmi Party),
Prof. Radha Kumar	(Former Interlocutor, Jammu & Kashmir),
Ms. Santosh Yadav	(First Indian women to climb Mount Everest)
Prof. Chaman Lal	(Leading authority on Bhagat Singh)
Sankalp Aggarwal	(IIT Kharagpur graduate and co-founder traveltriangle.com)
Saumya Mehrotra	(NIFT, Ahmedabad co-founder,Battigul)
Ankit Gupta	(Founder Innovese)
Ankur Singla	(Founder Akosha.com).
Abhijeet Kumar	(Co-founder Ah!Ventures),
Ajay Chaturvedi	Wharton Graduate and founder of HarVa (Harnessing Value)
Annu Grover	(Founder Nurturing Green)
Mrs. Ananya Ghosh Dastidar.	Asst. Prof. University of Delhi
S. C. Aggarwal	Prof. Univeristy of Delhi

25. Seminars/ Conferences/Workshops organized & the source of funding
- National Seminar in 2011 funded by College and Private sponsors National Symposium on Entrepreneurship 2012 funded by College and Private sponsors**
  - International NIL
26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		40	29	11	100%
2011-12		35	22	13	100%
2012-13		55	29	26	100%
2013-14		45	35	10	91.1%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	100	-	-
2011-12	100	-	-
2012-13	82.75%	15.5%	1.72%
2013-14	-	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? **One in Indian Military Academy, One in National Air-force Academy**

29. Student progression:- **No Documentation**

Student progression	Against % enrolled
UG to PG	
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
<b>Employed</b> Campus selection Other than campus recruitment	
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities
- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
  - b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
  - c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projector. The computers have internet connectivity.
  - d) **Laboratories:** Curriculum conducted in well equipped Compute Lab
31. Number of students receiving financial assistance from college, university, Government or other agencies:- **19**
32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts/ **Department has been inviting industry people regularly for workshops. It helps in skill development and employability of our students.(refer to table in Q.24).**
33. Teaching methods adopted to improve student learning:-  
The department combines the traditional ‘chalk and talk’ approach along with collaborative form of learning. The classrooms and labs have LCD projectors with high-end configured laptops for power point presentations required for teaching. The well connected wi-fi system of the college ensures the access to worldwide information in a matter of minutes.
34. Participation in Institutional Social Responsibility (ISR) and Extension activities  
**Students and teachers are active participants in activities organized by WDC.**
35. SWOC analysis of the department and Future plans



### **Strengths**

- The department comprises of a group of young and vibrant faculty.
- Focused approach.
- Blend of Business and Economics makes the course unique in itself.
- Equitable process of admissions as admission is through an Entrance Test.
- Updated industry oriented Course curriculum offering specialization in 5 different streams
- Students are taught Applied Econometrics through statistical packages like SAS and SPSS, which increases employability of the students
- Students have to write a research report as a part of curriculum which helps in developing research aptitude
- Students have opportunities to pursue higher education in the field of both Business and Economics

### **Weakness**

- Space constraint.
- Modern teaching amenities like smart boards are missing from the class rooms.
- Lack of permanent faculty members.
- BBE is a Self-financed course, UGC does not extend any grant and as a result under privileged students are unable to take admission to this course.
- Opportunities
- Increasing awareness and importance of business economics education in the country.
- Increasing requirement in the Industry of business and economics training.
- The course is getting good response from industry as the training is in line with industrial requirements.

### **Challenges**

- The department faces competition from other colleges in student intake as admission is based on a combined entrance test.
- The course should be made more in line with industrial requirements and at the same time building basic foundation for higher education in field of business and economics.

## EVALUATIVE REPORT OF DEPARTMENT OF CHEMISTRY

1. Name of the department: **Chemistry**
2. Year of Establishment: **1967**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG**
4. Names of Interdisciplinary courses and the departments/units involved: **Botany, Zoology, Physics, Maths, Biochemistry, Life Science, Physical Science.**
5. Annual/ semester/choice based credit system (programme wise): **Semester system**
6. Participation of the department in the courses offered by other departments: **Botany, Zoology, Biochemistry and Physics.**
7. Courses in collaboration with other universities, industries, foreign institutions, etc. **NIL**
8. Details of courses/programmes discontinued (if any) with reasons – **FYUP has been discontinued by the University of Delhi.**
9. Number of Teaching posts

	Sanctioned	Filled
Professors	Nil	-
Associate Professors	16	05
Asst. Professors		7 (Permanent) + 4 (Adhoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience till 2015	No. of Ph.D. Students guided for the last 4 years
Dr. Promila Mathur	Ph.D	Assoc. Professor	Inorganic Chemistry	32 years	-
Dr. Devender Singh	Ph.D	Assoc. Professor	Inorganic Chemistry	32 years	-

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Dr. Manjula Singh	Ph.D	Assoc. Professor	Organic Chemistry	32 years	-
Dr. Anil Krishan Aggarwal	Ph.D	Assoc. Professor	Physical Chemistry	26 years	-
Dr. Prasanta Kumar Sahu	Ph.D	Assoc. Professor	Physical Chemistry	17 years	-
Dr. Rajni Kanojia	Ph.D	Asst. Professor	Physical Chemistry	10 years	-
Mr. Mahendra Kumar Meena	M.Sc	Asst. Professor	Inorganic Chemistry	12 years	-
Dr. Bhaskar Mohan Kandal	Ph.D	Asst. Professor	Organic Chemistry	11 years	-
Dr. Neena Khanna	Ph.D	Asst. Professor	Organic Chemistry	12 years	-
Dr. Nand Gopal Giri	Ph.D	Asst. Professor	Organic Chemistry	07 years	-
Dr. Rahul Singhal	Ph.D	Asst. Professor	Inorganic Chemistry	09 years	-
Dr. Vandana Katoch	Ph.D	Asst. Professor	Physical Chemistry	12 years	-
Dr. Ravinder Kumar	Ph.D	Asst. Professor (Ad-Hoc)	Inorganic Chemistry	06 months	-
Dr. Richa Arora	Ph.D	Asst. Professor (Ad-Hoc)	Physical Chemistry	01 year	-
Mr. Deepesh Singh	M.Sc.	Asst. Professor (Ad-Hoc)	Organic Chemistry	3 years 10 months	-
Ms. Pooja Singh	Thesis submitted	Asst. Professor (Ad-Hoc)	Organic Chemistry	06 months	-

11. List of senior visiting faculty - **Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty (Ad hoc) - **Nil**

13. Student - Teacher Ratio (programme wise) **15:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **Sanctioned 4; Filled 4**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.  
**Ph.D. – 13 P.G. – 3**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:  
**Three faculty members are involved in projects funded by National Body.**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **Nil**
18. Research Centre /facility recognized by the University **Nil**
19. Publications:  
a) Publication per faculty **1.25**  
b) **List of Research Publications in refereed Journals**

S. No.	Title of Paper	Authors	Journal	Volume No. year ,Page No.	Publisher /ISSN No. / Int. Database
1	Design, synthesis and biological evaluation of small molecule-based PET radioligands for the 5-hydroxytryptamine 7 receptor	A. K. Tiwari, J. Yui, Pooja, S. Aggarwal, T. Yamasaki, L. Xie, N. Chadha, Y. Zhang, M. Fujinaga, Y. Shimoda, K. Kumata, A. K. Mishra, M. Ogawa and M.-R. Zhang	RSC Advances	2015, 5, 19752–19759.	IF: 3.708, ISSN 2046-2069

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2	Studies for development of novel quinazolines: new biomarker for EGFR	Swati Aggarwal, Deepa Sinha, Anjani K. Tiwari, Pooja Singh, Ankur Kaul, Gurmeet Singh, Anil Kumar Mishra.	Spectrochimica Chimica Acta Part A: Molecular and Biomolecular Spectroscopy	2015, Doi:10.1016/j.sac..	ISSN: 1386-1425
3	A Novel Method of reduction of $>C=N-$ Group in Hydrazones, Phenylhydrazones, Azines and Tosylhydrazones by Mg-Methanol	J. M. Khurana, B. M. Kandpal P. Sharma and M. Gupta	Montash Chem	DOI 10.1007/s00706-014-1306-6 2015	ISSN: 0026-9247 (print version) ISSN: 1434-4475 (electronic version)
4	Oxidation of phenyl propyne catalyzed by Copper(II) complexes of a benzimidazolyl schiff base ligand: Effect of acid/base, Oxidant, Surfactant and Morphology	Ravinder Kumar, Pavan Mathur	Spectrochimica Chimica Acta Part A: Molecular and Biomolecular Spectroscopy	2015, 136, 818-823	Elsevier ISSN: 1386-1425
5	An Insight into Pyruvate Dehydrogenase Kinase (PDHK) Inhibition through Pharmacophore Modeling and QSAR Studies	Rita Kakkar, Richa Arora, Pragya Gahlot & Deepti Gupta	Journal of Computational Science	2014, Vol 5, Page no. 558-567	ISSN No. 1877-7503
6	Review on Synthesis and Application of Schiff base and its transition metal complexes	Ravinder Kumar, Ravikant	Research Journal of Chemical and Environmental Sciences	2014, vol 2	ISSN: 2321-1040

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7	Oxidation of substituted benzyl amines using a phenoxo bridged dinuclear nickel(II) complex: Synthesis, Structure and catalytic activity	Ravinder Kumar, Pavan Mathur	Transition Metal Chemistry	2015, DOI 10.1007/s1243-014-9905-y	ISSN: 0340-4285 (print version) ISSN: 1572-901X (electronic version)
8	Copper(II) metallatriangles formed through ligand sharing: structural, Magnetic and catalytic Studies	K. Mahiya, Ravinder Kumar, F. Lloret, P. Mathur	Spectrochimica Chimica Acta Part A	2014, 133, 663-668	Elsevier ISSN: 1386-1425
9	Aerobic oxidation of 1,10-Phenanthroline to phen-dione catalyzed by Copper(II) complexes of a Benzimidazolyl schiff Base	Ravinder Kumar, P. Mathur	RSC Advances	2014, 4 (63), 33190-33193	RSC ISSN 2046-2069
10	Peptide Deformylase Inhibitors for Addressing the Issue of Bacterial Resistance	Tripti Kumari, Richa Arora & Rita Kakkar	International Review of Biophysical Chemistry (IREBIC)	2013, Vol 4, page no 19-48	ISSN no. 2038-0321
11	Bis(Methylpyridine)-EDTA Derivative as a Potential Ligand for PET Imaging: Synthesis, Complexation and Biological Evaluation	Pooja Singh, Swati Aggarwal, Anjani K. Tiwari, Vikas Kumar, Krishna Chuttani, Ramendra Pratap, Anil K. Mishra	Chem Biol Drug Des	2013, 84, 704-711	1747-0285 Impact factor 2.507

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12	Design, Synthesis and Biological Evaluation of Catecholamine Vehicle for Studying Dopaminergic System	Pooja Singh, Vikas Kumar, Swati Aggarwa, Anjani K. Tiwari, Krishna Chuttani, Ramendra Pratap, Anil K. Mishra	Chem Biol Drug Des	2013 , 82b, 226-232	1747-0285
13	Copper(II ) complexes of new tetra-dentate bis-benzimidazolyl Diamide Ligands: synthesis , structural and oxidation of some pyridyl, naphthyl and benzyl Alcohol	N. Tyagi, Ravinder Kumar, K. Mahiya, Pavan Mathur	Journal of Coordination Chemistry	2013 , 66, 19, 3335-3348	Taylor and Francis ISSN 1029-0389
14	Dimeric Copper(II) complex of a New Schiff Base Ligand: Effect of Morphology on the Catalytic oxidation of Aromatic Alcohol	Ravinder Kumar, K. Mahiya, P.Mathur	Dalton Transaction	2013 , 42, 8553-8557	RSC ISSN · 1477-9226
15	Benzohydroxamic Acid and its Applications: A Review	Richa Arora & Rita Kakkar	International Review of Biophysical Chemistry (IREBIC)	2012 , Vol 3, page no 212-233	ISSN no. 2038-0321
16	Bis-benzimidazole diamide iron(III) complexes as mimics of phenoxazinone synthase	R. Bhakshi, Ravinder Kumar, P.Mathur	Cat. Comm.	2012 , 17, 140-145.	Elsevier ISSN: 1566-7367

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17	Oxidation of olefins catalyzed by iron(III) complexes of bisbenzimidazolyl diamide ligands	G. Ahuja, Ravinder Kumar, P.Mathur	Journal of Molecular Structure	2012 , 1011, 166-171.	Elsevier ISSN: 0022-2860
18	Studying interaction of DDT with variety of organic solvents and developing some new solvent systems for separation of standard DDT by Thin Layer Chromatography	A.K. Jaiswal, S. Nagpal, N.G. Giri, M. Gupta, J. Kaur	International Journal of Chemical and Analytical Science	2012, Vol. 3(12) , pp 1668-1671	ISSN 0976-1209
19	Oxidation of substituted Alkyne's Catalyzed by a Non- Heme Iron (III) Bis Benzimidazole Diamide complex as Catalyst under ambient condition	R. Bhakshi, Ravinder Kumar, Pavan Mathur	Indian journal of Chemistry Section-A	2011 , Vol.50A, 658-663	NISCAIR ISSN: O975-0975

**List of Books, chapters and reading material.**

S.No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year , Page No., issue	Publisher /ISSN No. / Int. database
1	Recent Developments in Bio-Nanocomposites Ebook, Chapter 23 Cellulose based Bio-Nanocomposites: Tailoring and Applications	S.K. Shukla, N.G. Giri, V.K. Singh, A. Tewari		Nova Science Publishers, Inc., USA, 2011, Chapter 23	ISBN 978-1-61761-513-9 (eBook)



**Papers presented in Conferences/Workshop/ Symposium:**

20. Areas of consultancy and income generated - **Nil**
21. Faculty as members in
  - a) National committees
  - b) International Committees
  - c) Editorial Boards :- **Nil**
22. Student projects
  - a) Percentage of students who have done in-house projects including inter departmental/programme **7.1%**
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies **5%**
23. Awards / Recognitions received by faculty and students **Nil**
24. List of eminent academicians and scientists / visitors to the department:
  1. Prof. Gurmeet Singh, Department of Chemistry, University of Delhi
  2. Dr. Mohd. Shamim, Department of Chemistry, Jamia Hamdard University, Delhi.
25. Seminars/ Conferences/Workshops organized & the source of funding: National/International

**National**

1. Name/Title	Departmental Seminar	Funding agency
<b>Theme</b>	<b>RASTANTRUM</b>	<b>Shivaji college</b>
The number of Invited speakers	02	
Their Names and affiliations	1. Prof. (Dr.) Gurmeet Singh Department of Chemistry, University of Delhi (General Encouragement lecture) 2. Prof. (Dr.) Hashim Department of Chemistry, Jamia Hamdard University, Delhi (Lecture on NANOMATERIALS)	
Participation by students	All Chemistry students and students from other Departments.	

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<b>1. Name/Title</b>	<b>Workshop for Laboratory assistant /attendants of Chemical and Life Sciences</b>	<b>Funding agency</b>
<b>Theme</b>		<b>Shivaji college</b>
The number of Invited speakers	Dr. Devender Singh, Dr. Rahul Singhal, Mr. Mahender Meena, Dr. Vandana Katoch, Dr. Manjula Singh (Dr. Promila Mathur and Dr. Nand Gopal Giri Convener from Department of Chemistry )	
Their Names and affiliations	Department of Chemistry, Shivaji College (DU)	
Participation by students	All lab staffs. Of Science faculty	

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		09	06	03	44.44%
2011-12		32	12	20	81.25%
2012-13		59	38	21	37.28%
2013-14		43	30	13	30.23%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	75.86%	24.13%	-
2011-12	86.15%	13.84%	-
2012-13	76.05%	23.94%	-
2013-14	42.42%	57.57%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc. **No Documentation**

29. Student progression information:- . **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-

PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.
- d) **Laboratories:** The department has two well-maintained chemical laboratories with all the requisite chemicals and an analytical laboratory with equipment like pH meter, potentiometer, colorimeter, photometer, spectrophotometer and conduct-o-meter.

31. Number of students receiving financial assistance from college, university, Government or other agencies **30 students**

32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts: **January 2014- Visit and talk by Dr. Y Singh, IGIB to the department to discuss the innovation project SHC 205 progress and plan of work for Milk adulteration and its effect on young population**

33. Teaching methods adopted to improve student learning Apart from the chalk and board learning process, teachers have been making use of PowerPoint presentations to demonstrate various aspects of chemistry in classroom with the help of high quality projectors and laptops provided to the department. The students are also encouraged to give presentations. Wi-Fi facility is also available in the college.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:- **NIL**

**35. SWOC analysis of the Department of Chemistry**

**Strengths of the Department:**

- Dynamic, experienced faculty along with vibrant and young teachers.
- Focus on teaching as well as research.
- Most of the faculty members have doctorate degree with an immense experience of teaching and research.
- Students are encouraged to pursue higher education in the field of chemistry and every year a lot of students enroll themselves for advanced courses.

**Weakness**

- Shortage of infrastructure including laboratory and classroom space.
- There is declining trend of students towards pure sciences.

**Opportunities**

A lot of exciting opportunities await students when they complete a rigorous honors course in Chemistry, be it in teaching, research or industries. Chemistry makes an important part of curriculum of programme courses of science as well, which opens the gate for these students to newer and wider career options.

**Challenges**

The main challenge lies in the lack of awareness. Orientation programs should be organized to make students aware of career opportunities in the field of chemistry. Also, there is a lot of scope for the improvement of infrastructure so as to provide students with the opportunity to do their individual research.

## EVALUATIVE REPORT OF THE DEPARTMENT OF COMMERCE

1. Name of the department - **Commerce**
2. Year of Establishment: **1961**
3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) – **B.Com. (Hons.) & B.Com. (Prog.)**
4. Names of Inter disciplinary courses and the departments/units involved– **English and Hindi**
5. Annual/semester/choice based credit system (programme wise) - **Semester**
6. Participation of the department in the courses offered by other departments – **B.A (Prog.) Banking and Insurance**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.- **NIL**
8. Details of courses/programmes discontinued (if any) with reasons: **FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	<b>Sanctioned</b>	<b>Filed</b>
Professors	-	-
Associate Professors	20	4
Asst. Professors		5 (Permanent) + 11 (Adhoc)

- 10 Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D./M.Phil.etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4years
Dr. G.P. Mishra	M.Com,PhD	Associate Professor	Accounting	36 years	-
Ms. Usha Sharda	M.A.	Associate Professor	Indian economics and micro economics	42 years	-
Mr. P.R. Chadha	M.Com LL.B.	Associate Professor	Law	41 years	-
Ms. Suman Kharbanda	M.A.,MPhil	Associate Professor	Economics and Statistics	30 years	-

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Dr. Rabinarayan Samantara	M.Com, M. Phil, Ph.D.	Associate Professor	Taxation	23 years	-
Mr.Rajesh Kumar	M.com	Assistant Professor	Accounting And Finance	8 years	-
Mr.Ramesh Malik	M.Com, M.Phil	Assistant Professor	Finance	5 years and 11 months	-
Dr. Rajinder Singh	M.Com, PhD	Assistant Professor	Accounting And Finance	7 years	-
Ms. Kiran Choudhary	M.com	Assistant Professor	Marketing and law	6 years 8 months	-
Ms Preeti Malik	M.Com M.Phil	Assistant Professor (Adhoc)	Corporate Law	7 years 5 months	-
Ms Vanitha Chawla	M.Com	Assistant Professor (Adhoc)	Finance	7 years 5 months	-
Ms Monica	M.Com M.Phil	Assistant Professor (Adhoc)	Law	4 years and 7 months	-
Ms Shikha Menani	M.Com M.Phil	Assistant Professor (Adhoc)	Finance	5 years 3 months	-
Ms Manisha Rani	M.Com	Assistant Professor (Adhoc)	Marketing and Human Resource	4 years	-
Ms Manisha	M.com	Assistant Professor (Adhoc)	Marketing and Human Resource	2 years 8 months	-
Ms Chhavi Sharma	M.Com,PhD	Assistant Professor (Adhoc)	Accounting And computers	5 years	-
Ms Nidhi Sharma	M.COM	Assistant Professor (Adhoc)	Human Resource Management	1 year 4 months	-
Ms Anubha	M.com, M Phil	Assistant Professor (Adhoc)	Human resource management and Marketing	1 year	-
Ms Supriya Kamna	M.com	Assistant Professor (Adhoc)	Finance & Marketing	4 months	-

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Ms. Monica Dahiya	M.Com., M.B.A	Assistant Professor (Adhoc)	Marketing and H.R.	1 year 7 months	-
Ms. Shweta	M.Com.	Assistant Professor (Adhoc)	Finance	2 months	-

11. List of senior visiting faculty: **NIL**
12. Percentage of lectures delivered and practical classes handled (programmewise) By temporary faculty: **60%**
13. Student-Teacher Ratio (programme wise) – **40:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **NIL**
15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.

Qualifications	No. of Teachers
Ph.D	04
MPhil	07
PG	10

16. Number of faculty with ongoing projects from
  - a) National – **NIL**
  - b) International funding agencies and grants received- **NIL**
17. Departmental projects funded by DST-FIST;UGC, DBT, ICSSR, etc. and total grants received- **NIL**
18. Research Centre/facility recognized by the University: **NIL**
19. Publications:
  - a) Publication per faculty: **3.15**

**List of Research Publications in refereed Journals**

S. No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. Database
1	Corporate Governance in Real Estate Sector : prospective	Supriya Kamna	Iaspira- Journal of Modern Management and Entrepreneurship	2015 Vol. No. 5, Issue no 1,	ISSN : 2231-167X

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	Developments				
2	An investigation into notions of spirituality using qualitative research approach	Nidhi Sharma(Co-Authored by Dr. R. K. Singh and Dr. C.S. Sharma)	Primax International Journal of Commerce and Management Research	2014, Vol-II, Issue-2	ISSN: 2321-3604
3	Onset of Political Marketing in India	Supriya Kamna	Inspira Journal	2014, vol-4, No.3	ISSN: 2231-167X
4	Motivation-Review and Challenges	Nidhi Sharma	Review of Research	2014, Vol-3, Issue-4	ISSN:2249-894x
5	Managing Talent for Sustainable Competitive Differentiation	Nidhi Sharma	Parikalpana – KIIT Journal of Management	2014, Vol-10(I)	ISSN:0974-2808
6	Day of week effects in Indian stock market: An empirical study	Ramesh Malik	Journal of advances & scholarly researches in allied education	2014, Vol. 7, issue 13	ISSN 2230-7540
7	Effect of social media on studies	Anubha	Pacific Business Review International	2014, Vol. 7, Issue 1	ISSN: 0974-438X
8	State of Regional Rural Banks in India	Manisha	International Research Journal of Management Sociology & Humanity	2014, Vol. 5, Issue 2	ISSN- 2277-9809
9	State of Regional Rural Banks in India	Shikha Menani, Manisha	International Research Journal of Management Sociology & Humanity	2014, Vol. 5, Issue 2	ISSN- 2277-9809
10	Mobile Commerce: Technology beyond Electronic Commerce	Manisha	Edubeam Multidisciplinary-online research journal	2014, Vol. 4, Issue-1	ISSN- 2320-6314
11	A study on online consumer behavior towards apparels	Anubha	Excel International journal of Multidisciplinary studies	2014, Vol. 4 (6)	ISSN 2249-8834
12	Ambush Marketing- An Insight	Supriya Kamna	Tactful Management Research Journal	2014, Vol. 2, Issue-10	ISSN :2319-7943
13	Goods and service tax – Panacea for	Supriya Kamna	Tactful Management Research Journal	2014, Vol. 2, Issue-10	ISSN :2319-7943



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	Indirect Tax System in India				
14	Opportunities and Challenges for Indian Women Entrepreneurs	Manisha	The International Journal of Business and Management	2014, Vol. 2, Issue 1	ISSN- 2321-8916
15	Opportunities and Challenges for Indian Women Entrepreneurs	Shikha Menani, Manisha	The International Journal of Business and Management	2014, Vol. 2, Issue 1	ISSN- 2321-8916
16	Growth and Problems of Small Scale Industries in India	Manisha	Sanshodhan Kranti, International Multidisciplinary Research Journal	2014, Vol. 10, Issue-1	ISSN- 2321-0389
17	Niche Marketing – Key for Small Business Growth	Manisha	Sanshodhan Kranti, International Multidisciplinary Research Journal	2014 Vol. 14, Issue-1	ISSN- 2321-0389
18	Comparative analysis of dividend payout trend of Indian Telecom and Steel Industry	Pankaj Chadha, Vanitha Chawla	Shiv Shakti International Journal in Multidisciplinary and Academic Research	2014, Vol. 3 No. 1	ISSN 2278-5973
19	Social Entrepreneurship: Changing the world for the better	Shikha Menani	Challenging Strategies for Business Management	2014, Vol. 1, No. 1	ISBN 978-81-927004-0-3
20	A Prospective Business: E-Waste Management	Supriya Kamna	Maru Vyvsay Chakra	2014	ISSN: 2320-3889
21	Global Marketing - A Comparison of Domestic and International Marketing	Monica	International Journal of Management Research,	April 2014, Volume no. 2., Issue No. 4	ISSN 2321-1709
22	Marketing- The Importance of Credible Stories	Nidhi Sharma	Review of Research	2013, Vol-3, Issue-3	ISSN:2249-894X
23	Significance of First Time Managers in Employee Engagement	Nidhi Sharma	Indian Streams Research Journal	2013, vol-3, Issue-11	ISSN: 2230-7850

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24	Corporate Social Performance of Listed Indian Banks: A Comparative Analysis	Pankaj Chadha, Vanitha Chawla, GOPALARENGAN	Zenith International Research & Academic Foundation (ZIRAF)	2013, ZIJBEMR, VOL – 03, ISSUE - 07	ISSN ONLINE: 2249-8826
25	A Study on Consumer Preference towards Organized and Unorganized Retailers in Small Towns	Anubha	Management Vista Journal	2013, Volume VI, no. (i) (ii)	ISSN 0974-682X
26	"Study Of Impact Of E-commerce on Retail Economic".	Manisha Rani	IRJMSH(International Research journal of Management Sociology and humanities)	2013, Volume 4 issue 3	Online ISSN-2277-9809
27	"Bankruptcy In Indian Context and Economic Recovery".	Manisha Rani	CASIRJ(International Research journal of Commerce Arts and science)	2013, Volume 4 issue 3	online ISSN-2319-9202
28	"Corporate Finanace Senario In Indian Economy".	Manisha Rani	CASIRJ(International Research journal of Commerce Arts and science)	2013, Volume 4 issue 3	ISSN : 2319-9202
29	Significance of The Human Factor in Mergers	Nidhi Sharma	Golden Research Thoughts	2013, Vol-3, Issue-6	ISSN: 2231-5063
30	Managing Talent- A Review	Nidhi Sharma(Co-Authored by Dr. R. K. Singh, SRCC, DU)	Amity Business Review	2013, vol-14, No.2	ISSN: 0972-2343
31	Retaining Talent in a World of Rising Aspirations	Nidhi Sharma	Research Direction	2013, Vol-1, Issue-6	ISSN:2321-5488
32	Corporate Social Responsibility: Implications and Challenges	Dr. Chhavi Sharma (Sole Author)	COMMERCE TODAY (VOL.8,2013)	2013, Vol.8, 132	SRI J.N.P.G. COLLEGE, LUCKNOW/ 0975-7775

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33	Comparative analysis of Indian housing finance companies; based on corporate governance disclosure	Vanitha Chawla, Co author Pankaj Chadha,	4D International Journal Of Management And Science	2013, Vol.3, Issue 2	ISSN 2250-0669
34	Corporate Social Responsibility Practices in India: A Comparative Study of MNCs and Indian Companies	Dr. Rajinder Singh (Coauthor Dr. Mahabir Narwal)	Social Responsibility Journal	2013, Vol. 9, No. 3, pp 465-478	ISSN 1747-1117
35	Month related anomalies in Indian stock market: An empirical study	Ramesh Malik	Journal of advances & scholarly researches in allied education	2013, Vol. 6, issue 12	ISSN 2230-7540
36	A study about administration of HR and organisational efficiency in retail banking industry	Kiran chaudhary	IJITM	2013, Vol. 5, issue 1	ISSN 2249-4510
37	An empirical analysis on effect of credit policy of RBI on banker stocks	Kiran chaudhary	IJITM	2013, Vol. 5, issue 1	ISSN 2249-4510
38	FDI and E-commerce in India	Kiran chaudhary	IRJMST	2013, Vol. 4, issue 2	ISSN 2250-1959
39	"Is India Ready For E-Commerce".	Manisha Rani	IRJMST(International Research journal of management science and technology)	2013, Vol. 4 issue 2	Online ISSN-2250-1959
40	FDI and FII as drivers of growth for Indian Economy	Shikha Menani	International Journal of Innovative Research and Development	2013, Vol 2, Issue 13	ISSN 2278-021
41	Performance Analysis of Selected Housing Finance Companies in India- A CAMEL Approach	Pankaj Chadha, Vanitha Chawla	International journal of research in Commerce & Management	2013, IJRCM VOL NO. 4, ISSUE NO. 04	ISSN 0976-2183

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42	Corporate Social Responsibility And Financial Performance Linkage: Study Of Indian Banking Sector	Pankaj Chadha, Vanitha Chawla, GOPALARENGAN	The Institute of Cost Accountants of India (ICWAI)	2013 Research Bulletin	ISSN 2230-9241
43	Corporate social responsibility economic progress, social progress and challenges	Anubha	Elixir International journal	2013	ISSN 2229-712X, 55 A
44	Encouraging clean energy investment in developing economy like India	Anubha	Elixir Mgt. Arts International Journal	2012	ISSN 2229-712X, 52 A
45	Post of Merger Performance of Companies in Pharmaceutical Industries of India	Dr. Chhavi Sharma (Sole Author)	COMMERCE TODAY (VOL.7,2012)	2012, Vol.7, 54	SRI J.N.P.G. COLLEGE, LUCKNOW/ 0975-7775
46	'Study of Relationship between Corporate Web Disclosure and Selected Company Characteristics'	Preeti Malik and Prof.Jawahar Lal	Journal of Commerce & Accounting Research	2012, VOLUME 01, ISSUE 01	ISSN : 2277-2146
47	Perception of Corporate Social Responsibility: A Comparison of Managers in MNCs and Local Companies in India	Dr. Rajinder Singh, (Coauthor – Dr. Mahabir Narwal)	Journal of Knowledge Globalisation	2012, Vol. 5, No. 2, pp 25-45	1038-7008
48	'Corporate Web Disclosure Practices In India'	Preeti Malik, Prof.Jawahar Lal	Indian Accounting Review	2011, VOLUME 15, NO. 01	(ISSN 0972-1754)

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49	Retail Industry – A Sunrise Sector in India	Kiran chaudhary	Emerging Paradigms in Business & Economics	2011, Vol. 1, No. 17, pp. 143-148, 2011	ISBN 978-93-80697-67-3
50	Depository System in India; An Appraisal	Kiran chaudhary	IJMRA International Journal of Research in Social Science	2011, Vol. 1, No. 1	ISSN 2249-2496
51	A comparative study of Investment Behaviour of Foreign Institutional Investors and Domestic Institutional Investors in the Indian Security Market	Shikha Menani	Business Analyst	2011, Vol 32, Issue 1	ISSN 0973-211X
52	Managerial Perception of CSR: A Study of MNCs	Dr. Rajinder Singh, (Coauthor – Dr. Mahabir Narwal)	PRABANDHAN: Indian Journal of Management	2010, Vol. 3, No. 8, pp. 44-54	ISSN 0975-2854
53	CSR Practices of MNCs in India: An Empirical Study	Dr. Rajinder Singh, (Coauthor – Dr. Mahabir Narwal)	OPTIMISATION	2010, Vol. 3, No. 1, pp. 13-23	0974-0988

**List of Books, chapters and reading material.**

S.No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year, Page No., issue	Publisher /ISSN No. / Int. database
1	Chapter : “I Lead-Pioneers of Change” Book : “Anujivami-I Survive”	Chhavi Sharma	Dr. Ritu Madan, Vikas Sharma	2014, pages 58-67	ISBN:9789383848027
2	Human Resource Management	Nidhi Sharma(Co-Authored by A. A. Ansari; Professional Advisor T. N. Chhabra)	Dr. T. N. Chhabra	2014	Sun India Publications, New Delhi, ISBN: 978-93-80674-84-1

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3	Chapter : “I Lead-Pioneers of Change” Book : “Anujivami-I Survive”	Nidhi Sharma	Dr. Ritu Madan, Vikas Sharma	2014, pages 58-67	Pinnacle Learning (New Delhi) ISBN:9789383848027
4	Chapter : “I Lead-Pioneers of Change” Book : “Anujivami-I Survive”	Shikha Menani	Dr. Ritu Madan, Vikas Sharma	2014, pages 58-67	Pinnacle Learning (New Delhi) ISBN:9789383848027
5	Chapter : “I Lead-Pioneers of Change” Book : “Anujivami-I Survive”	Preeti Malik	Dr. Ritu Madan Vikas Sharma	2014, pages 58-67	Pinnacle Learning (New Delhi) ISBN:9789383848027
6	Principles of Marketing Management	Ramesh Malik	R. Malik	2013	Aryan publication, ISBN NO:978-81-925044-8-3
7	Financial Accounting	Nirmal Gupta, Dr. Chhavi Sharma		2013	Ane Books Pvt. Ltd./ 978-93-8212-710-9
8	Corporate Accounting	Nirmal Gupta, Dr. Chhavi Sharma		2012	Ane Books Pvt. Ltd. / 978-93-8116-270-5
9	Strategic Financial Management	Ramesh Malik		2010	Vishavbharti Publications, Delhi, ISBN No: 978-81-89917-66-1

20. Areas of consultancy and income generated - **NIL**
21. Faculty as members in
- a) National committees – **NIL**
  - b) International Committees – **NIL**
  - c) Editorial Boards - **NIL**
22. Student projects
- a) Percentage of students who haved one in-house projects including inter departmental/programme- **NIL**

- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies- **NIL**
23. Awards/Recognitions received by faculty and students - **NIL**
24. List of eminent academicians and scientists/visitors to the department
1. Speakers for spark 2013 → Dr. J.L. Gupta, Dr. Naval Kishore and Prof. K.V. Dhanmurty.
  2. Speakers for optimum 2014 → Annual festival of department → Ms. Aparna Bhatia, Director, Department of Economics Affairs, Ministry of Finance.
  3. Speakers for optimum 2015 → Prof. J.P. Sharma, Head Department of Commerce, University of Delhi.
25. Seminars/Conferences/Workshops organized & the source of funding
- a) National – **NIL**
  - b) International - **NIL**
26. Student profile programme /course wise: B.Com (Hons.)

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		35	30	05	100%
2011-12		50	39	11	100%
2012-13		90	73	17	100%
2013-14		64	55	09	75%

**Student profile programme/course wise: B.Com (P.)**

Name of the Course/programme(prefer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		45	40	05	100%
2011-12		57	40	17	64.91%
2012-13		84	69	15	76.19%
2013-14		90	79	11	83.33%

\*M=Male \*F=Female

27. Diversity of Students

Course B.Com (Hons.)

Name of the Course	%of students from the same state	%of students from other States	%of students from abroad
2010-11	74.19%	25.81%	0%
2011-12	92.87%	7.13%	0%
2012-13	83.09%	16.91%	0%
2013-14	70.42%	29.58%	0%

Course B.Com (P)

Name of the Course	%of students from the same state	%of students from other States	%of students from abroad
2010-11	77.97%	22.03%	0%
2011-12	87.97%	12.03%	0%
2012-13	72.97%	26.35%	0.68%
2013-14	-	-	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.? **No Documentation**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to



library books, issue & return of books using barcoded identity cards, well managed reading hall etc.

- b) Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projector. The computers have internet connectivity.
- d) Laboratories –** Course curriculum is held in well-equipped Computer lab.

31. Number of students receiving financial assistance from college, university, Government or other agencies – **B.Com (H) – 137, B.Com (P) - 71**

32. Details on student enrichment programmes (special lectures/ workshops/ seminar) with external experts:

Several experts have visited the department to enrich the students on subject.

One such speaker was Mr. Horbinder, Bombay Stock Exchange (BSE) who visited the department in 2014. (for rest of the list refer **Q.24**)

33. Teaching methods adopted to improve student learning:

The department combines the traditional ‘chalk and talk’ approach along with collaborative form of learning. The classrooms and labs have LCD projectors with high-end configured laptops for power point presentations required for teaching. The well connected wi-fi system of the college ensures the access to worldwide information in a matter of minutes.

To bring about practical understanding of curriculum the department organizes visits to place like BSE and encourage to write the projects.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

The students participate actively in extension programmes. As members of Women Development Cell (WDC) they visited Prateek Institute, Blind Schools and Anganvadi to help children with special needs.

35. SWOC analysis of the department and Future plans

**Strengths**

- The department of Commerce at Shivaji College has a perfect mix of experienced and young faculty who complement each other.
- They are proficient in ICT technology.
- Faculty members have experience of teaching in international universities.
- The faculty members regularly update themselves by attending refresher courses, orientation programmes, workshops and conferences.
- They have published several books and have presented papers at various national and international conferences.
- The department has an active Commerce Society consisting of elected student members from each class. It conducts annual inter college academic competitions, talks, seminars and educational trips.

**Weakness**

- Inability to sustain much needed industrial trips for overall growth of students.

**Opportunities**

- Publishing the departmental achievements through an yearly journal.
- Associating with industry to create employment opportunities for students.

**Challenges**

- Vocational training to students.
- Providing increased job opportunities for students.
- Creating an industry-academia interface.

## EVALUATIVE REPORT OF THE DEPARTMENT OF COMPUTER SCIENCE

1. Name of the Department: **Computer Science**
2. Year of Establishment: **1984**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)  
**Courses provided at undergraduate level:** B.Sc. Applied Physical Science, B.Tech Computer Science
4. Names of Interdisciplinary courses and the departments/units involved:  
**Departments: Physics, Mathematics, Botany, Zoology Course: Applied Physical Science**
5. Annual/ semester/choice based credit system (programme wise):  
**Semester System**
6. Participation of the department in the courses offered by other departments Department has been involved in teaching:
  - (i) Computational Skills to students of B.Sc. (H) Botany, Zoology and B.Sc. (H) Biochemistry. Life Science, Physical Science
  - (ii) Foundation Course Information Technology was offered to all the other disciplines studying in College.
7. Courses in collaboration with other universities, industries, foreign institutions, etc. - NA
8. Details of courses/programmes discontinued (if any) with reasons: B.Tech Computer Science (part of FYUP curriculum) has been withdrawn.
9. Number of teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	-	2
Associate Prof./ Asst. Professors	6	6 (Adhoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

Evaluative Report of the Department of Computer Science

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Mr. Rakesh Yadav	MCA	Associate Professor	Computer Architecture, Networks, Operating System, Programming	25 years	-
Ms. Preeti Sharma	MCA	Associate Professor	Data Structure , Programming Languages	25 years	-
Ms. Abha Vasal	MCA, M.Phil	Assistant Professor	Databases, Requirements Engg	12 years	-
Dr. Smriti Babbar	MCA, M.Phil , Ph.D	Assistant Professor	Knowledge Management and Artificial intelligence	6 years 3 months	-
Mr. Ajay Kumar	MCA	Assistant Professor	Data structure, Discrete Algorithms, Discrete mathematics, Theory of computation and compiler design	2 years 7 months	-
Ms. Sapna Grover	M.Sc Computer Science	Assistant Professor	Algorithms and Data Structures, Computer Networks	3 years	-
Mr. K.K Gautam	MCA	Assistant Professor	Computer Networks	6 years 5 months	-
Dr. G.Uma Vetri Selvi	M.C.A., M.Phil. Ph.D	Assistant Professor	Image Processing	4 years 10 months	-
Ms. Neelam Dabas	M.C.A.	Assistant Professor	Information Security	1 year	-

11. List of senior visiting faculty: **NIL**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : **87%**
13. Student -Teacher Ratio (programme wise) **B.Tech - 5:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

Post	Sanctioned	Filled
Senior Technical Assistant	01	-
Scientific Assistant	02	02
Lab Attendant	02	02 (Contractual)

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.  
**Ph.D. – 02 M.Phil. – 03 P.G. – 05**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received - **Two faculty members are involved in Innovation projects funded by University of Delhi.**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received – **NIL**
18. Research Centre /facility recognized by the University: **Nil**
19. Publications:
  - a) Publication per faculty – **3.5**
  - b) List of Research Publications in refereed Journals

S. No.	Title of Paper	Authors	Journal	Volume No. / year ,Page No.	Publisher /ISSN No. / Int. Database
1	Development of wireless communication network : from 1G to 5G	Ajay Kumar, shivam Jaiswal, Neha Kumari	International Journal Of Engineering And Computer Science	2014 , Volume 3 Issue 5 ,Page No. 6053-6056	ISSN: 2319-7242
2	Success of Windows 8: Capturing multiple markets	Ajay Kumar, shivam Jaiswal, Asha Yadav	International Journal Of Engineering And Computer Science	2014 , Volume 3 Issue 5 , Page No. 6099-6103	ISSN: 2319-7242

Evaluative Report of the Department of Computer Science

3	Routing in Delay Tolerant Mobile Network: A Comparative Analysis	Sapna Grover, Aditya Pancholi	International Journal Of Engineering And Computer Science	2014 , Volume 3 Issue 4 ,Page No. 5568-5571	ISSN:2319-7242
4	IRCAR: Improved Reputation based Context-aware Routing Algorithm for Delay Tolerant Network	Aditya Pancholi, Sapna Grover	International Journal Of Engineering And Computer Science	2014 , Volume 3 Issue 4 ,Page No. 5449-5552	ISSN:2319-7242
5	FSR: Ferry-based Secure Routing Algorithm for Delay Tolerant Networks	Sapna Grover, Aditya Pancholi, Sonika Arora	International Journal of Engineering and Computer Science	Volume 3 Issue 5 may, 2014 (Pg no. 6104-6108)	ISSN No.: 2319-7242
6	From Marvels to Disasters: Flaws in Requirements Engineering and Design	Sapna Grover, Aditya Pancholi	International Journal of Innovative Research & Development	Vol 3 Issue 5, May 2014, (Pg no. 469-472)	ISSN 2278-0211
7	Fast Greedy Algorithm for Routing in Delay Tolerant Network	Aditya Pancholi, Sapna Grover	International Journal of Engineering and Computer Science	Volume 3 Issue 5 may, 2014 (Pg no. 6027-6032)	ISSN No.: 2319-7242
8	Scaled Agile Framework: A Bligh	Aditya Pancholi, Sapna Grover	International Journal of Innovative Research & Development	Vol 3 Issue 5, May 2014, (Pg no. 425-427)	ISSN 2278-0211
9	A Review of Research Work in Software Engineering	Ajay Kumar, Madhu Kumari, Meera Sharma	International Journal Of Engineering And Computer Science	2014 , Volume 3 Issue 4 ,Page No. 5288-5297	ISSN: 2319-7242
10	Research on Android App Vs Apple App Market: Who is	Ajay Kumar, Shivam Jaiswal	International Journal Of Engineering And Computer	2014 , Volume 3 Issue 4 , Page No.	ISSN: 2319-7242

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	leading		Science	5553-5556	
11	Asymmetric Key Management in Wireless Ad-hoc Network- A survey	Co-Author: Krishan Kant Singh	IJRASET Journal	2014	ISSN NO 2321-9653
12	CT and MRI Image Compression using Wavelet Based Contourlet Transform and Binary Array Technique	Uma Vetri Selvi, G. and Nadarajan, R.	Journal of Real-Time Image Processing	Available online, Feb 2014	ISSN: 1861-8200 (print version) ISSN: 1861-8219 (electronic version)
13	Web Technology: Making the World Shrink	Neelam Dabas	Culture, Society & Law. A Refereed, multidisciplinary, International Journal.	Volume No. 1, Issue-II July-December-2014	2348-1250
14	Android-Key Concepts and Architecture	Neelam Dabas	Global Education Society and Development, An International Journal of Academicians.	Volume No. 5(No. 4) January – March 2014	0975-1319
15	Nanocomputing: The Technology of the Future	Neelam Dabas	International Educational Research & Development, A Refereed, Multi disciplinary, International Journal.	Volume No. 3 - Issue 4 January - March 2014	2250 - 3862
16	Geo Informatics	Neelam Dabas	Academic Views & Reviews. An International Journal of Education, Research & Innovation.	Volume No. 3(No. 4) January - March 2014	2249-7242

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17	A Destination-Initiated Mix Route Algorithm in MANET	Dr. Smriti Babbar,	International Journal of Advanced Research in Computer Science and Electronic Engineering .	2013 , volume 2, issue 5, Page No. 495- 501.	ISSN: 2277-9043
18	Information security using information hiding techniques	Dr. Pooja Sharma, Neelam Dabas	Sambhavya, An International Multi-Disciplinary Research Journal of Indian Cultural Social and Educational Stream.	Volume No. -15 October – December 2013	0976-9358
19	Multimedia - Evolving Paradigms	Neelam Dabas	Shodh Kalpataru, An International Multi-Disciplinary Research Journal.	Volume No. 11 October – December 2013	2249-6114
20	Application of Contrast Sensitivity Function and Binary Matrix Technique for Medical Image Compression	Uma Vetri Selvi, G. and Nadarajan, R.	Journal of Medical Imaging and Health Informatics	Vol.2, No.1, 2012, Page 174-181	American Scientific Publishers ISSN: 2156-7018 (Print): EISSN: 2156-7026 (Online)
21	Coronary Angiogram video Compression using Wavelet based Contourlet Transform and ROI technique	Uma Vetri Selvi, G. and Nadarajan, R.	IET image processing	Vol.6, No.8, 2012 pp.1049-1056	Print ISSN 1751-9659 Online ISSN 1751-9667
22	A conceptual view on managing knowledge that relied on work done in Artificial	Smriti Babbar	International Journal of trends in computer science	2011 , Volume 1, Issue 7, Page No.267-271	ISSN no. 2348-5205



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	Intelligence and Expert System				
23	A Conceptual Framework For Developing Effective Knowledge Management Systems	Smriti Babbar	International Journal of Trends in Computer systems Engineering	2011 , Volume 1, issue 4 ,Page no. 136-151	ISSN : 2348-1978
24	A study of Knowledge Management in India	Smriti Babbar	Management Journal of Delhi Productivity Council	2010, Volume 12, No 49 ,2010	R.N 65544/96

**List of Books, chapters and reading material**

S.No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year , Page No., issue	Publisher /ISSN No. / Int. database
1	Chapter- "I FIGHT: Building homes away from home" Book :Anujivami-"I Survive	Ms. Abha Vasal	Dr. Ritu Madan Vikas Sharma	2014, Page No.s: 46-55	Pinnacle Learning, New Delhi, India. ISBN: 978-93-83848-02-7
2	Chapter- "I FIGHT: Building homes away from home" Book :Anujivami-"I Survive	Dr. Smriti Babbar	Dr. Ritu Madan Vikas Sharma	2014, Page No.s: 46-55	Pinnacle Learning, New Delhi, India. ISBN: 978-93-83848-02-7
3	Chapter- "I FIGHT: Building homes away from home" Book :Anujivami-"I Survive	Ms. Sapna Grover	Dr. Ritu Madan Vikas Sharma	2014, Page No.s: 46-55	Pinnacle Learning, New Delhi, India. ISBN: 978-93-83848-02-7
4	Chapter- "I FIGHT: Building homes away from home" Book :Anujivami-"I Survive	Ms. Preeti Sharma		2014, Contributed in Designing and Editing text	Pinnacle Learning, New Delhi, India. ISBN: 978-93-83848-02-7

20. Areas of consultancy and income generated: **N.A.**

21. Faculty as members in

a) National committees

**Mr. Rakesh Yadav : Member Computer Society Of India**

**Dr. Smriti Babbar : Life Member of AEACI (Association of Environmental Analytical Chemistry of India.**

b) International Committees – NIL

c) Editorial Boards - NIL

22. Student projects

Percentage of students who have done in-house projects including inter departmental/programme – **15% students were involved in innovation project.**

**All B.Tech students undertake software engineering projects in fourth semester of their curriculum.**

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: **25% of B.Tech students did internship during summer vacation.**

23. Awards / Recognitions received by faculty and students

Departmental students have been bringing laurels to the Department. They have participated in various technical and non technical events organized by other Colleges affiliated to University of Delhi and other universities.

**Few achievements of our students**

Winners at Sankalan, Technical festival, DUCS Feb 28 to 1 March 2015

1) code-a-thon: 1st prize : Ankur & Gaurav (B.Tech)

2) Turn -coat : 1st prize : Prerna (B.Tech)

Winners at Technical Fest , DDU College Feb 26, 2015

Prabhat & Shubham for 1st Prize in Coding event

Winners at Technical Fest at Jawahar Lal University, Feb 23, 2015

1) 1st Prize in code Insomania.

2) 3rd Prize in specialist event.

Ankur Goel of B.Tech Computer Science won a cash prize of Rs 1000/- by attaining second position in Programming Event, organized by Department of Computer Science, DDU, University of Delhi, in Feb 2014.

24. List of eminent academicians and scientists / visitors to the department
- Dr S.K Muttou (Head Dept of Computer science, D.U.)
  - Mr. Sandeep Sharma (VP SYSCOM Corporations)
  - Dr. Saibal K Pal, Senior Scientist , DRDO
  - Manoj Yadav, Tax Spanner.
  - Mr. Vikas Jain , CEO , Adhyan innovative learning
  - Mr. Ankit Tripathi ( Software developer , Amazon , Banglore )
  - Mr. Udit Sharma ( Senior Software developer, Quikr, Banglore)
  - C B Devgan, SPACE
25. Seminars/ Conferences/Workshops organized & the source of funding  
Department faculty have been part of organizing committee for International conference and workshops under taken by College
- a) National - **The Department organized inter college “True Hacking Workshop” funded by Shivaji College, on October 9-10, 2014.**
- b) International - Nil
26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		12	06	06	66.66%
2011-12		29	26	03	24.13%
2012-13		31	21	10	22.58%
2013-14		46	38	08	50%

\*M = Male \*F = Female Student profile programme/course wise:

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	53.06%	46.93%	-
2011-12	79.03%	20.96%	-
2012-13	86.66%	13.33%	-
2013-14	44.68%	55.31%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? **No Documentation**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities:

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.
- d) **Laboratories:** Four Labs housing 150 computers, providing access to sophisticated softwares and internet. Labs are equipped with LCD projectors.

**Configuration of Computers:**

- (1) Acer/ Veriton M200 Series/ 2.60 gigahertz AMD Phenom II X4 810/ 2 GB RAM/ 320 HDD/LCD 19 Monitor /Windows 7 OS/Norton Antivirus
- (2) Acer/ Veriton WO#3025 Series/ Inter core 2 Duo 2.93 gigahertz / 2 GB RAM/ 320 HDD/LCD 19 Monitor /Windows 7 OS/Norton Antivirus

- (3) HP/ Compaq Mini Tower/ DX2700/Intel Core 2 Duo, E6600, L2 Cache 4 MB FSB 1066MHz, Speed 2.40 GHz, 512MB, DDRII, 80GB HDD, 1.44MB FDD, DVD Combo, 15" TFT Monitor, USB Key Board & Mouse
31. Number of students receiving financial assistance from college, university, government or other agencies: 19
32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **Refer to Table in Q.24**
33. Teaching methods adopted to improve student learning
- Audio Visual Presentations and ICT Tools are used to explain concepts
  - Hands on projects are allocated to students to improve their programming skills.
  - Group Discussions and presentations are encouraged for problem solving.
  - Websters is the society for Departmental students providing a platform to go beyond academics and nurture their hidden talents.
34. Participation in Institutional Social Responsibility (ISR) and Extension activities Our students have been part of Vayam- The Theatre society of College which have performed plays on issues like Old age, Dying Art forms in India and on women issues
- They have further participated in events of WDC wing of Shivaji College Students are also members of other cultural societies of College and actively participate in inter college Cultural and Technical Festivals
35. SWOC analysis of the department

### **Strengths**

- The department consists of vibrant and enthusiastic faculty.
- The staff is cooperative and always keen to reach out to students.
- The faculty has always encouraged students to excel in academics as well as to pursue extracurricular activities and projects.
- The faculty keeps looking for innovative teaching methods to explain concepts and syllabi.
- Interactive sessions are organized with Experts from IT Industry who provide industrial exposure to students. 10 B.Tech students were sent for internship during summer vacation in 2014.

- The department has four computer labs housing 150 computers, and providing access to sophisticated softwares and internet. All Labs are equipped with LCD projectors.

#### **Weakness**

- As the laboratories are shared with all departments, there is a pressing need to have a dedicated lab/ working space for computer students to pursue their projects.
- The strength of class requires additional trained support staff.
- Continuous maintenance of laboratory is required.

#### **Opportunities**

- The department plans to introduce B.Sc. (Hons.) Computer Science in coming sessions.
- Students enrolled under B.Tech computer Science will be industry ready in few years. The department encourages students to enhance their programming skills.
- The department also plans to conduct ‘CODECHEF’ chapter in the College in upcoming months.
- Inter disciplinary Innovation projects provides platform to pursue research.

#### **Challenges**

- Obtain funding and improving infrastructure.
- Motivate students to look at avenues and pursue higher education.
- Opportunities to place B.Tech students is a huge responsibility on the department.

## EVALUATIVE REPORT OF THE DEPARTMENT OF ECONOMICS

1. Name of the department - Economics
2. **Year of Establishment - 1961**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., and Integrated Masters; Integrated Ph.D., etc.) – **Under-graduate courses B.A.(Hons) Economics**
4. Names of Interdisciplinary courses and the departments/units involved- **Discipline Centered Courses, Allied Courses and Departments involved are : Commerce, English, Geography, Hindi, History, Mathematics and Political Science**
5. Annual/ semester/choice based credit system (Programme wise): **B.A.(Hons) Economics - Three year Semester system**
6. Participation of the department in the courses offered by other departments: **Allied Course taught to B.Com (H) B.Sc. (Mathematics) and Discipline Centered Courses to B.A. (Hons) courses other than Economics.**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.- **NA**
8. Details of courses/programmes discontinued (if any) with reasons: **FYUP has been discontinued by the University of Delhi.**
9. Number of Teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors		2
Asst. Professors	9	4 (Permanent) + 3 (Adhoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Ms. Anshu Chopra	M.Phil	Associate Professor	Macro Economics, International Economics	26	-

Evaluative Report of the Department of Economics

Ms. Mamta Datt	M.Phil	Associate Professor	Agricultural Economics Money and finance	18yrs 6 months	-
Ms. Iti Tripathi	M.Phil	Assistant Professor	Public Economics	13 yrs 10 months	-
Dr. Reetika Rana	PhD	Assistant Professor	Environmental Economics, Development Economics	7 yrs 5 months	-
Mr. Krishna Ram	M.Phil	Assistant Professor	Poverty and nutrition, Applied Econometrics	6 yrs 5 months	-
Mr. Sumeet Singh Raheja	M.Phil	Assistant Professor	Econometrics and Environmental Issues	7 yrs 5 months	-
Ms. Gurdeep Kaur (Adhoc)	M.Phil	Assistant Professor	Econometrics	4 yrs 5 months	-
Dr. Pooja Verma (Adhoc)	PhD	Assistant Professor	Public Finance	4yrs 5 months	-
Ms. Priya Saxena (Adhoc)	MA	Assistant Professor	Macro economics	7 months	-

11. List of senior visiting faculty - **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty - **35%**
13. Student -Teacher Ratio (programme wise):**B.A. (H) Economics - 24:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled - **Nil**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG



Evaluative Report of the Department of Economics

Highest qualification	Professor
Faculty :9	
D. Sc.	
Ph.D.	2
M. Phil	6
P. G.	1

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Two faculty members involved in 2 ongoing projects funded by National Bodies**

17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received – **2 Projects**

18. Research Centre /facility recognized by the University –

19. Publications:

a) Publication per faculty--- **0.1**

**b) List of Research Publications in refereed Journals**

S no.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. database
1	Cereal Consumption as Proxy for Real Income	Krishna Ram	Economic Political Weekly	2013, XLVIII No., p.102-109	129976

20. Areas of consultancy and income generated - **N.A.**

21. Faculty as members in:

a) National committees – **NIL**

b) International Committees – **NIL**

c) Editorial Boards – **NIL**

22. Student projects: **NIL**

a) Percentage of students who have done in-house projects including inter departmental/programme: **NIL**

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies – **NIL**

23. Awards / Recognitions received by faculty and students:

Dr. Reetika Rana	Scholarship for Faculty Training Program to pursue M.Sc. Economics (Finance), University of Edinburgh	2011-12
Mr. Sumeet Singh Raheja	Scholarship for Faculty Training Program to pursue M.Sc. Economics (Econometrics), University of Nottingham	2011-12
Mr. Krishna Ram	Scholarship for Faculty Training Programme to pursue M.Sc. Economics, University of Birmingham	2011-12

24. List of eminent academicians and scientists / visitors to the department –

- a) Ms. Sumita Dasgupta, Programme Director, Environment Education Unit, Centre for Science and Environment
- b) Mr. Ajay Sinha, AGM, Dept. of Banking Supervision, RBI
- c) Ms. Anuradha Kapoor, Market Intelligence Officer with the Department of Non-Banking Supervision, RBI
- d) Prof. Tanuja Sharma, MDI, Gurgaon,
- e) Mr. Jaspreet Oberoi, H.R. Head, Convergys Limited,
- f) Ms. Mandeep Kaur, H.R. Head, IBM.  
Ms. Aparna Bhatia,  
Director, Dept. of Economic Affairs, Ministry of Finance, GOI
- g) Mr. Varghese K. System Analyst Centre for the study of Regional Development Jawaharlal Nehru University, New Delhi
- h) Mr. Jay Dev Dubey Consultant Research and Information System for Developing Countries

25. Seminars/ Conferences/Workshops organized & the source of funding

- a) National – **NIL**
- b) International – **NIL**

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		16	13	3	56.25%
2011-12		26	19	7	88.46%
2012-13		43	29	14	95.34%
2013-14		59	37	22	55.93%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	82.75%	25.86%	Nil
2011-12	95.10%	4.8%	Nil
2012-13	79.4%	20.58%	Nil
2013-14	71.4%	28.57%	Nil

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? **No Documentation**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	--
PG to M.Phil.	---
PG to Ph.D.	---
Ph.D. to Post-Doctoral	---
<b>Employed</b> Campus selection Other than campus recruitment	----
Entrepreneurship/Self-employment	----

30. Details of Infrastructural facilities
- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
  - b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
  - c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projector. The computers have internet connectivity.
  - d) **Laboratories: N.A.**
31. Number of students receiving financial assistance from college, university, government or other agencies – **25**
32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts - **Number of eminent personalities and scientists have interacted with students through various seminars organized by the department (refer to list in Q.25).**

**WORKSHOP ON STATISTICAL METHODS (SPSS AND STATA)**

- a) Mr. Varghese K. System Analyst Centre for the study of Regional Development Jawaharlal Nehru University New Delhi
  - b) Mr. Jay Dev Dubey Consultant Research and Information System for Developing Countries
33. Teaching methods adopted to improve student learning:  
**The faculty uses audio visual aids for better understanding of subject.**
34. Participation in Institutional Social Responsibility (ISR) and Extension activities:  
**Students are active participants in the activities organized by NSS, NCC, WDC cell.**
35. SWOC analysis of the department and Future plans

### **STRENGTH**

- Energetic faculty with a blend of experience and youth
- Faculty is always keen to experiment with teaching methods to make learning more effective.
- The department takes ample initiatives to help and support students needing special attention in class due to weak educational background

### **WEAKNESS**

- Constraints of high quality research facilities.
- A high teacher student ratio hampers effective teaching.

### **OPPORTUNITIES**

- The course curriculum promotes research opportunities available to students in various industries during the summer internships.
- The department can associate with private institutes to introduce curriculum with a professional edge.

### **CHALLENGES**

- Diverse educational background of students admitted to the first year poses a challenge for the teachers to ensure uniformity in understanding and effective learning
- Providing support to students who need special attention in face of limited infrastructure becomes a huge challenge for the department

## EVALUATIVE REPORT OF THE DEPARTMENT OF ENGLISH

1. Name of the department - **English**
2. Year of Establishment -**1961**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) – **B.A (Hons) English**
4. Names of Interdisciplinary courses and the departments/units involved-  
**NIL**
5. Annual/ semester/choice based credit system (Programme wise)-  
**Semester System**
6. Participation of the department in the courses offered by other departments- **Commerce, Physics, Chemistry, APS, Life Sciences, Biochemistry, Economics, Geography, Hindi, Mathematics, History, Political Science**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.- **NIL**
8. Details of courses/programmes discontinued (if any) with reasons –  
**FYUP has been discontinued by the University of Delhi.**
9. Number of Teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	11	1
Asst. Professors		11 (10 – Permanent) (01- Ad-hoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the
Dr. Poonam	Ph.D.	Associate Professor	American Drama	21 years	-
Ms. Sonali Garg	M.Phil.	Assistant Professor	Indian Literature	17 years	-
Ms. S. Hangzo	M.Phil.	Assistant Professor	Indian Writing in English	9 years 9 months	-

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Ms. Anjali Raman	M.Phil.	Assistant Professor	19 <sup>th</sup> American novelist –James Ferimore Ecocriticism	15 years	-
Ms. Ritu Madan	M.Phil.	Assistant Professor	Victorian Novel, Women’s Writing	10 years	-
Ms. L. Gitarani Devi	M.Phil.	Assistant Professor	Folklore Studies, North-East Women’s Writing, North-Eastern Studies, African Literature	7 years	-
Dr. Varun Gulati	Ph.D.	Assistant Professor	Indian English Fiction and Poetry, Shakespeare	8 years	-
Dr. Divya Madaan	Ph.D.	Assistant Professor	Literary Theory, British Romanticism Indian English Literature, Classical Literature	4 years	-
Ms. Preeti Disodia	M.Phil.	Assistant Professor	19 <sup>th</sup> Century Irish Drama, Contemporary British Literature	2 years 4 months	-
Ms. Chakpram Priyanka	Ph.D.	Assistant Professor	Native Literature (Canada and Australia)	3 years	-
Ms. Gunjan Kumari	M.Phil.	Assistant Professor	Dalit Literature	2 years	-
Dr. Arup K Chatterjee	Ph.D.	Assistant Professor	Travel Writing, Architecture and Writing, Modernism Literary Theory, Psychogeography, French Philosophy	3 years 5 months	-

11. List of senior visiting faculty - **Nil**

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty - **Nil**

13. Student -Teacher Ratio (programme wise): **18:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled -**N.A**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG-Ph.D  
**Ph.D. – 05 M.Phil. – 07**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received- **Nil**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received - **Nil**
18. Research Centre /facility recognized by the University- **Nil**
19. Publications:
  - a) Publication per faculty--- **2.3**

**b) List of Research Publications in refereed Journals**

S No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. database
1	“Pinteresque Journey: From The 1950s Onwards”	Dr. Chakpram Priyanka	New Man International Journal of Multidisciplinary Studies	Vol. 1, No. 5, May 2014, pg. 62-68	ISSN 2348-1390
2	“Native Canadian Voices: Life-Writings of Maria Campbell and Beatrice Culleton Masionier”	Chakpram Priyanka	International Journal of Interdisciplinary and Multidisciplinary Studies	2014, Vol. 1, No. 5, 3, pg 37-40	ISSN: 2348-0343
3	"Changes and Challenges: Reviewing Configuration of Technology, Global Trends and English Language "	Ms. Sarita	Language in India	2014 , Volume 14, pp- 358-364	ISSN: 1930-2940
4	"Language and the Art of Novel: A Bakhtinian Paradigm"	Ms. Sarita	The Educand: Journal of Humanities and Social Sciences	2013 , pp- 109-112	ISSN: 2249-9741



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5	"The Poetry of Mystical Love: A Comparative Study of Mirabai and Kamala Das"	Ms. Sarita	Chintan: A Triamasik Research Journal	2013 , pp- 105-110	ISSN: 2229-7227
6	"Transcending Social Norms in Quest of Self-Identity: A Reading of Mirabai and Kamala Das"	Ms. Sarita	The Educand: Journal of Humanities and Social Sciences	2013 , pp- 178-181	ISSN: 2249-9741
7	"The Aesthetics of Violence in the age of Digital Technology"	Dr. Sunil Kumar	Shodh Kalpatru	2013 , Issue 10 , pp- 188-198	ISSN: 2249-6114
8	"Cyberspace and the Aesthetics of Contemporary Perception"	Dr. Sunil Kumar	Shodh Vaichariki	2013 , Issue 4, pp- 53-60	ISSN: 2277-6419
9	"Who am I: Am I not a replica of Joshi?" A translation of Sanjeev Kumar's review of Manohar Shyam Joshi's <u>Kaun Hoon Mein</u>	Dr. Sunil Kumar	The Book Review	2011 , Volume XXXV, No. 1, pp- 32	DL-SW – 1/ 4079/ 2009- 10- 11, No. R.N. 28686/76
10	"Counter Cultures and Sub-identities in Ismat Chughtai's "The Quilt (Lihaaf)"	Dr. Divya Madaan	Helicon Views	2011 , Vol. XVI pp 80-86	ISSN: 0974-8806
11	"The Outsider and his Problem: A quasi-Existential approach to Kiran Nagarkar's Seven Sixes are Forty-three (Saat Sakkam Trechalis) and Ravan and Eddie"	Dr. Divya Madaan	Pragati's English Journal	2011 , Vol. XI pp 93-99	ISSN:0975-4091
10	"Divided Selves: The Home and the World at conflict in A.K. Ramanujan's Poetry"	Dr. Divya Madaan	Journal of Humanities and Social Sciences	2011 , Vol. XI pp-60-64	ISSN: 0976-3035
11	Ammu's Lugubrious Tale of Alienation in Roy's Man Booker Novel	Dr. Varun Gulati	Language In India/ India	11: 341-352 8 Aug 2011	International Journal/ 1930-2940
12	Taslina Nasrin's Lajja: A Critique	Dr. Varun Gulati	Language In India/ India	11: 780-785 11 Nov 2011	International Journal/ 1930-2940

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13	A Study of M.G. Vassanji's <i>No New Land</i>	Dr. Varun Gulati	Notions/ Meerut India	II No1: 117-126 March 2011	International Journal/ 0976-5247
14	Treatment of City in Nayantara Sahgal's <i>Storm in Chandigarh</i>	Dr. Varun Gulati	Language In India/ India	10: 80-91 3 March 2010	International Journal/ 1930-2940
15	Inside the Haveli: A Study	Anju Jagpal, Dr. Varun Gulati	Language In India/ India	10: 245-253 2 Feb 2010	International Journal/ 1930-2940

**List of Books, chapters and reading material.**

S No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year , Page No., issue	Publisher /ISSN No. / Int. database
1	<b>Book</b> :Contemporary Literature in English by South Asian Writers <b>Chapter</b> : Rohinton Mistry's Such a Long Journey: Shadows of Alienation and Identity Problems	Dr. Varun Gulati		190-196	Radha Publication 81-7487-727-4
2	Book :Feminine Fragrance: Reflections on Women's Writing in English Article :Alienation in the Booker Prize-Winning novel of Arundhati Roy	Dr. Varun Gulati		209-221	Gnosis 978-93-81030-28-8
3	Book :Contemporary Women's Writing in India	Dr. Varun Gulati		ix-xviii	Rowman & Littlefield 978-1-4985-0210-8 Hardback 978-1-4985-0211-5 e-book

20. Areas of consultancy and income generated – Nil
21. Faculty as members in
  - a) National committees – Nil
  - b) International Committees – Nil
  - c) Editorial Boards – Nil
22. Student projects
  - a) Percentage of students who have done in-house projects including inter departmental/programme Nil
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - Nil
23. Awards / Recognitions received by faculty and students Nil
24. List of eminent academicians and scientists / visitors to the department -
  1. Ms. Lushin Dubey, Stage actor and Director  
Dr. Saumyabrata Choudhary, International artist  
Prof. Ashis Nandy, Director, CSDS, Social and Political Theorist.
  2. Prof. Harish Narang, Centre for English Studies, School of Languages, Literature and Culture Studies, JNU.
  3. Prof. Aparna Basu, Author.
  4. Dr. Ayesha Kidwai, Professor, Centre for Linguistics, JNU.
  5. Ms. Ritu Menon, Writer and Co-founder- “Kali for Women”.
  6. Dr. Nonica Dutta, Asst. Professor, Dept. of History, Miranda House, DU.
  7. Dr. Ira Bhaskar, Prof., School of Arts and Aesthetics, JNU.
  8. Dr. Tarun Saint, Associate Professor, Dept. of English, Hindu College, DU.
  9. Mr. Ravikant, Assistant Professor, CSDS.
  10. Dr. Sukrita Paul Kumar, Dept. of English, Zakir Hussain College, DU.
  11. Dr. Keval Arora, Dept. of English, Kirori Mal College.

12. Dr. Dilip k. Basu, Retd., Dept. of English, Rajdhani College.  
 13. Dr. Rudrashish Chakraborty, Dept. of English, Kirori Mal College.  
 14. Dr. Arjun Ghosh, IIT Delhi.
25. Seminars/ Conferences/Workshops organized & the source of funding  
 a) National - National Seminar on “The Line that Divides: Understanding Partition from women and /in Partition Narrative 23 -24 Jan, 2013 (Funding: Indian Council for Historical Research).  
 b) International - Nil
26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		26	8	18	65.38%
2011-12		28	10	18	92.85%
2012-13		31	14	17	96.77%
2013-14		22	9	13	77%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	44.11%	41.17%	14.70%
2011-12	93.9%	6.06%	-
2012-13	72.15%	27.8%	-
2013-14	78.3%	21.6%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? **No Documentation –**

29. Student progression:- **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-

<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.
- d) **Laboratories: - NA**

31. Number of students receiving financial assistance from college, university, government or other agencies: - **10**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts ----

**Number of eminent personalities and scientists have interacted with students through various seminars organized by the department (refer to list in Q.24).**

33. Teaching methods adopted to improve student learning:

Faculty members experiment with teaching methodologies to make the classroom environment receptive. Seminars, competitions, conferences and other extra-curricular activities are organized to encourage students to explore beyond the prescribed curriculum. Field-trips and tours are organized so that students are able to relate their course-work with experiential knowledge.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: - **Nil**

35. SWOC analysis of the department and Future plans

**Strength:**

- A dynamic and vibrant faculty ready to experiment with teaching methodologies to make the classroom environment receptive.
- Adherence to a regulated Academic Calendar and organization of seminars, competitions, conferences and other extra-curricular activities to encourage students to explore beyond the prescribed curriculum.
- Field-trips and tours are organized so that students are able to relate their course-work with experiential knowledge.
- An exclusive Student Cultural Committee is constituted at the beginning of each academic session and students are elected on board as President, Vice-President, Secretary and Treasurer. This exercise ensures student autonomy and promotes interaction between students of all the three academic years.

**Weakness:**

- Lack of a language laboratory to organize exclusive sessions of film screening, paper reading and writing for students to generate interest in them regarding reading material beyond the syllabus.

**Opportunities:**

- The Department can collaborate with institutes like British council to introduce courses with Professional edge.
- There is immense demand in media for English graduates.

**Challenges:**

- Students from diverse academic background secure admission in English (H). It is a challenge to sensitize them and generate their interest in the initial stage.
- Many students (in non-honours courses) struggle with written and spoken English. Teachers try to impart as much practical assistance as they can to bring them at par with others.

## EVALUATIVE REPORT OF THE DEPARTMENT OF GEOGRAPHY

1. Name of the department: **Geography**
2. Year of Establishment: **1977.**
3. Names of Programmes/Courses offered(UG, PG, M.Phil, Ph.D. Integrated Masters; Integrated Ph.D.,etc.):**UG/ B.A. (Hons.) Geography**
4. Names of Interdisciplinary courses and the departments/units involved.  
**B. Sc. (Hons.) Mathematics. Paper I: Environmental Geography, Paper II: Geography of India.**
5. Annual/semester/choice based credit system (programmewise):  
**Semester**
6. Participation of the department in the courses offered by other departments: **Department of Mathematics.**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.: **NA**
8. Details of courses/programmes discontinued (if any) with reasons–  
**FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	Nil	-
Associate Professors	8	6
Asst. Professors		4 (Adhoc Teachers)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. /M.Phil.etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 years
Dr. B. S. Dahiya	M.A., M. Phil., Ph.D	Associate Professor	Urban Geography and Geomorphology	37 years	-
Dr. D. V. Chhikara	M.A., Ph.D.	Associate Professor	Agricultural Geography	34 years	–
Dr. Surender Singh	M.A., M. Phil., Ph. D.	Associate Professor	Settlement and Statistical Geography	38 years	–

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Dr. Lalita Rana	M.A., M. Phil., Ph.D.	Associate Professor	Urban Geography and Historical Geography	25 years	2 Ph.D. Students
Dr. Tejbir S. Rana	M.A., M. Phil., Ph.D.	Associate Professor	Environment and Development	24 years	1 Ph. D. Student
Dr. Preeti Tewari	M.A., M.Phil., Ph.D.	Associate Professor	Environmental Geography	24 years	-
Mr. Jagmohan	M.A., M.Phil.	Assistant Professor	Environmental Geography	11 years	-
Dr. Nitin Punit	M.A., M.Phil., Ph.D.	Assistant Professor	Urban Geography	3 years	-
Dr. Rajender Singh	Ph.D.	Assistant Professor	Urban Geography	3 years	-
Mr. Bharat Ratnu	M.A.	Assistant Professor	Environmental Geography	2 years	-

11. List of senior visiting faculty - **No**
12. Percentage of lectures delivered and practical classes handled (programmewise) by temporary faculty (Ad hoc) - **40%**
13. Student-Teacher Ratio (programmewise): B. A. (Hons.) Geography – **16:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **Sanctioned: 2 Filled: 2**
15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG.: **Ph.D.-8 M.Phil.-1 P.G.- 1.**
16. Number of faculty with ongoing projects from
  - a) National - **Two faculty members are involved in Innovation Projects financed by University of Delhi.**
  - b) International funding agencies and grants received: - **Nil**
17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:
 

**One Project funded by ICSSR.**



18. Research Centre/facility recognized by the University **Nil**

19. Publications:

a) Publication per faculty – **1.2**

b) **List of Books, chapters and reading material.**

S.No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year , Page No., issue	Publisher /ISSN No. / Int. database
1	Book: Diversity in India	Dr. Tejbir S. Rana	N. A.	2014	R. K. Books, Delhi, ISBN No. 9789382847489
2	Chapter: Perspectives of Women Health Hazards in Urbanized Villages of Delhi. Book: Empowering Women: The Indian Socio-Cultural Scenario	Dr. Tejbir S. Rana	Dr. Shashi Nijhawan, Dr. Amarjiva Lochan, Dr. Darshan Malik	Pp 82-91; 2014	Pragun Publication (A D K Publishers Distributors Enterprise), New Delhi, ISBN No. 9789380397498
3	Co-Author for General Studies Paper-I for Civil Services Preliminary Examination 2015	Dr. Surender Singh		31 Revised Editions	McGraw Hill Education, New Delhi. ISBN 10: 93-392-1792-6
4	Co-Author for Samanya Adhyayan, 2014 Paper -I for Civil Services Preliminary Examination 2014	Dr. Surender Singh		10 Revised Editions	McGraw Hill Education, New Delhi. ISBN 10: 81-926796-4
5	Co-Author, Geography of India	Dr. Surender Singh		2014	Access Publishing, New Delhi. ISBN 10: 93-83454-03-02
6	Geographical Thought: Classical and Contemporary	Dr. Lalita Rana		2014	Concept Publishing Company, New Delhi

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7	Ancient Tradition in Geography: The Western and Oriental Perspective	Dr. Lalita Rana		2014	Classical Publishing Company, New Delhi
8	Co-Author and Book Project Coordinator for Central Teacher Eligibility Test Paper-II (Social Science Teacher Selection)	Dr. Surender Singh		2013	Access Publishing, New Delhi. ISBN 10: 81-926796-8-3
9	Co-Author and Book Project Coordinator for Central Teacher Eligibility Test Paper-II (Mathematics and Science Teacher Selection)	Dr. Surender Singh		2013	Access Publishing, New Delhi, ISBN 10: 81-926796-8-3
10	Co-Author and Book Project Coordinator for UGC NET/SET, Paper -I	Dr. Surender Singh		2013	McGraw Hill Education, New Delhi ISBN 10: 1-25-902700-7
11	Evolution of modern Geographical Thinking and Disciplinary Trends in India	Dr. Lalita Rana		2013	Geography Course Material, AGS Website
12	Geography	Dr. Surender Singh		2011	McGraw Hill Education, New Delhi ISBN10:0-07-107480-5

20. Areas of consultancy and income generated –

- a. Teachers are extending consultancy to Tehri NHPC as 3<sup>rd</sup> party observer for different social welfare and environment protection related projects.
- b. Teachers are involved in providing free consultancy to various institutes for UPSC Exams. as per their expertise.

21. Faculty as members in
- a) National committees: - **Nil**
  - b) International Committees: - **Nil**
  - c) Editorial Boards: - **Nil**
22. Student projects
- a) Percentage of students who have done in-house projects including interdepartmental/programme- 100 percent students are involved in assigned projects in Vth semester.
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories /Industry/ other agencies  
**NIL**

23. Awards/Recognitions received by faculty and students:

Dr. Tejbir S. Rana	<ol style="list-style-type: none"> <li>a. Rastriya Gaurav Award by India International Friendship Society</li> <li>b. Teachers' Day Award -2012 for outstanding contribution in the sphere of educational excellence by Lions Club International</li> </ol>	2012
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24. List of eminent academicians and scientists/visitors to the department:
1. Professor Sudesh Nangia: Head CSRD, JNU.
  2. Dr. Himanshu Pathak, Sr. Scientist IARI.
  3. Dr. Milap Chand Sharma (Glaciologist): JNU.
  4. Professor R. B. Singh, Head Department of Geography, University of Delhi.
  5. Professor S. S. Dhevda, CSRD, JNU.
  6. Dr. Debashish Chakraborty, Sr. Scientist IARI, PUSA, Delhi.
  7. Professor S. K. Aggarwal, National Fellow, Institute of economic Growth, Delhi.
25. Seminars/Conferences/Workshops organized & the source of funding: National/International Annual Seminar named as Shivalik is organized every year as per the academic needs of undergraduate syllabi.
- The details of the last five long excursions of B. A. (Hons.) IIIrd year students is as follows:

1. Bhopal Vidisha visit (2010-11) to study the implications of Bhopal Gas Tragedy.
2. Sindhu Durg-Shiroda (2011-12) to study the man environment relationship in Sahyadri.
3. Karwar-Panjim (2012-13) to study the implications of karwar port on agriculture.
4. Sattari-Goa (2013-14) to study the implications of ban on Iron ore mining in Goa.
5. Maheshwar-Mandu-Ujjain (2014-15) to study the human response to environment in Malwa Plateau on Narmada Valley.

26. Student profile programme/coursewise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
B. A. Hons. Geography 2010-11	22	22	16	6	90.90%
B. A. Hons. Geography 2011-12	47	47	31	16	97.87%
B. A. Hons. Geography 2012-13	49	49	27	22	100%
B. A. Hons. Geography 2013-14	50	50	36	14	68%

\*M=Male \*F=Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B. A. Hons. Geography 2010-11	46.29%	46.29%	7.4%
B. A. Hons. Geography 2011-12	83.0%	16.94%	-
B. A. Hons. Geography 2012-13	67.50%	27.50%	5%
B. A. Hons. Geography 2013-14	51.7%	46.55%	1.72%

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

Shivaji College is meant for undergraduate courses therefore college has no official information about the outcome of competitive exams. On the basis of information received from alumni, almost 25 students from the department have qualified various competitive exams.

29. Student progression needs information – **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	-
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

- a) **Library-** There is small departmental library with good selected of books. The students and teachers also access college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projector. The computers have internet connectivity.
- d) **Laboratories:** The Geography laboratory is also well developed with advanced GIS mapping softwares, Geomedia, Mapinfo and GGIS.

31. Number of students receiving financial assistance from college, university, Government or other agencies: All the SC, ST, PH and students from north eastern states received financial assistance. The data in this regard keep fluctuating semester wise.

32. Details on student enrichment programmes (special lectures/workshops/seminar)

With external experts:

Departmental academic geo-fest programme, SHIVALIK-2015 was organized on 26<sup>th</sup> February, 2015.

**Theme: Sustainable Habitation.**

Lecture I: Climate Change and Food Security by Dr. Debashish Chakraborty, Sr. Scientist, IARI.

Lecture II: Smart Cities for sustainable urban habitation by Professor S. K. Aggarwal, National Fellow, and Institute of Economic Growth.

33. Teaching methods adopted to improve student learning:

- Local and long excursions for fieldwork.
- PowerPoint Presentations.
- Regular Assignments.
- Paper presentations.
- Class tests and debates.
- E-learning method.
- Forming pupil-mentor system.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

- (a) Delhi slums and resettlement colonies field visit of students under Innovation.
- (b) Visit of students and teachers to Nagaur, Rajasthan for developing Rainwater Harvesting Techniques under Innovation.

35. SWOC analysis of the Department of Geography

**Strength**

- A blend of experienced and vibrant Faculty.
- The department boasts of hard working and excellent quality of students.
- Academic and job oriented courses' curriculum.
- Academic work aided with empirical studies in the field.

- A small departmental library to help students to access study material which otherwise not available.

**Weakness**

- Space constraint.
- Financial crunch for undertaking independent field studies.
- Lack of departmental computer laboratory.

**Opportunities**

- Interdisciplinary nature of the subject prepares students for better understanding and equipping them for wider job opportunities.
- The Department is capable of handling various add-on courses offered by the university.

**Challenges**

- Achieving academic excellence despite limited resources.
- Ensuring better professional opportunities to the students through campus placement.
- Development of all round personality of the students.

## EVALUATIVE REPORT OF THE DEPARTMENT OF HINDI

1. Name of the department – **Hindi**
2. Year of Establishment – **1961**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) –  
**B.A. (Hons.) Hindi, M.A. Hindi, B.A. (Prog.), B.Com(Prog.) and B.Com(Hons.)**
4. Names of Interdisciplinary courses and the departments/units involved-  
**Disciplined Centred Course, Qualifying Language Course**
5. Annual/ semester/choice based credit system (Programme wise)-  
**Semester**
6. Participation of the department in the courses offered by other departments **Commerce, Economics, English, History, Mathematics, Political Science, Geography and Sanskrit.**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.- **Nil**
8. Details of courses/programmes discontinued (if any) with reasons –  
**FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors		04
Asst. Professors	12	04= Permanent 07*= Ad-hoc (*3 against leave vacancy)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)



Evaluative Report of the Department of Hindi

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr Usha Kanta Chaturvedi	MA, M.Phil, Ph.D	Associate Professor	Hindi Katha Sahitya	26 years	-
Dr Sarvesh Kumar Dubey	MA, M.Phil, Ph.D	Associate Professor Associate Professor	Ram Bhakti sahitya	22 years	-
Dr Ruchira Dhingra	MA, M.Phil, Ph.D	Associate Professor	Gadya sahitya	23 years	-
Dr Virender Bhardwaj	MA, M.Phil, Ph.D.	Associate Professor	Modern Poetry	21 years	4 Ph.D. Students
Dr. Vikas Sharma	MA, M.Phil., Ph.D.	Assistant Professor	Bhasha vigyan, Natak, media	8 years	-
Dr Jyoti Sharma	MA, M.Phil, Ph.D	Assistant Professor	Theatre Hindi natak, Media	8 years	-
Dr Darshan Pandey	MA, M.Phil, Ph.D	Assistant Professor	Hindi Naatak , Media	13 years	-
Ms. Rajkumari	MA, M.Phil,	Assistant Professor	Hindi katha sahitya	6 years	-
Dr Sarita	MA, M.Phil, Ph.D	Assistant Professor	Madhya Kaleen Hindi kavya	3 years	-
Dr Arvind Kumar Yadav	MA, M.Phil, Ph.D.	Assistant Professor	Adhunik Sahitya Chintan	3 years	-
Dr Anuj Kumar Tarun	MA, M.Phil, Ph.D.	Assistant Professor	Hindi Upanyas , Media	2 years	-
Dr Kanchan	MA, M.Phil, Ph.D	Assistant Professor	Hindi Natak	2 years	-
Mr. Ashok Kumar meena	M.A. , M.phil.	Assistant Professor	Hindi Natak	9 months	-
Dr. Munil kumar Verma	M.A. , M.phil. Ph. D.	Assistant Professor	Hindi Natak	4 months	-
Dr. Tarun	M.A. , M.phil. Ph. D.	Assistant Professor	Hindi Kahani Aur Aalochana	9 months	-

11. List of senior visiting faculty **NA**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty - **NA**
13. Student -Teacher Ratio (programme wise):  
**B.A.(Prog.) – 34:1, B.Com (Prog) – 30:1, B.Com (Hons.) - 30:1**  
**B.A. (Hons.) Hindi – 17:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled - **NA**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG  
**Ph.D. – 13 M.Phil. - 02**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received- **Two faculty members are involved in Innovation projects funded by University of Delhi**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received -**Nil**
18. Research Centre /facility recognized by the University- **NA**
19. Publications:
  1. Publication per faculty--- **3**
  2. List of Research Publications in refereed Journals

S. No.	Title of Paper	Authors	Journal	Volume No. year , Page No.	Publisher /ISSN No. / Int. database
1	Saat aasman men muslim samaaj ki chhavi	Dr. Anuj Kumar Tarun	Review of Research journal	VOL3 ISSUE-4jan.2014	ISSN - 2249-894X
2	Hindi saahitya men vibhinn vidhayon ka aanuvaad	Dr. Anuj Kumar Tarun	Research Direction	VOL-I ISSUE 7/jan 2014	ISSN- 2321-5488
3	Prayogdharmita ka naya dharatal: Mohan Rakesh ke beej natak	Dr. Jyoti Sharma	Smbhavya International Multi disciplinary research journal	2013 , 14 ,pg-342-344	0976-9358

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4	Sahitya aur media ka antahsambandh	Dr. Jyoti Sharma	Shodh kalptaroo a refreed journal	2013 , Vol-10, pg- 328-333	2249-6114
5	Aprasangik hote mulyon ke bich nirman aur priwartan ki prkiya	Dr. Anuj Kumar Tarun	Golden research Thoughts	vol iii,issue. v /nov - 2013. Pg-1-4	2231-5063
6	Kedarnath agrwal ki kvitaon me prem ka swroop	Dr. Anuj Kumar Tarun	Indian streams research journal	VOL.III,ISSUE.X/NOV-2013	ISSN NO-2230-7850
7	Aupaniwesik Adhunikata Aur Bhakti Kavya	Arvind Kumar Yadav	Anabhai Sanch	July-September 2013	ISSN-2321-2276
8	Global Ganw Me Hindi Kahani Ki Fikra	Arvind Kumar Yadav	Anabhai Sanch	October-December 2013	ISSN-2321-2276
9	Itihas Ki Dabi Chikho Ki Pratidhwani 'Kullibhat	Arvind Kumar Yadav	Vimal Vimarsh	2013	ISSN-2348-5884
10	Vartmaan Samaj ke Dwandwa aur Chunautiyan	Dr. Virender Bhardwaj	Journal of Social Asian studies		ISSN - 1598-1061
11	Hashiyon Ka Ubhar: Stree Vimarsh	Dr. Kanchan Sethi	"Drashta"	2013 ,Page No. 42	ISSN No. 2277-2480
12	Nirala Ki Kavya Yatra	Munil Kumar Verma	Vikshaa	2012 , Ank 6	ISSN 0975-3788
13	Rangmanchiya Pratimano Par Andher-Nagri	Munil Kumar Verma	Golden Research Thoughts	2012	ISSN 2231-5063
14	Mahadevi Verma Ke Rekhachitra	Munil Kumar Verma	Sambhavya	2011	ISSN 0976-9358
15	Maila-Aanchal Me Lok Geeton Ki Bhumika	Munil Kumar Verma	Shodh Kalptaru	2011	ISSN 2249 – 6114

**List of Books, chapters and reading material.**

<b>S no .</b>	<b>Books, chapters in books, other than refereed journal articles *</b>	<b>Authors</b>	<b>Editor</b>	<b>Volume No. year , Page No., issue</b>	<b>Publisher /ISSN No. / Int. database</b>
1	Hansa Jai Akela: Path Vishlesher	Dr. Jyoti Sharma	N.A	2015	ILLL,D.U.
2	Bhartiya Kavyashastra	Dr. Virendra Bharadwaj		2014	ISBN-978-93- 83513-63-5, Natraj Prakashan
3	BOOK-Prabhakar kshotriy ke natak	Dr. Jyoti Sharma		Vol-1,2014	Sanjay Prakashan – ISBN NO.- 978-81-7453- 449-1
4	Ghananand ki kavitaon kaa path vishleshan	Dr. Darshan Pandey	N.A.	2015	ILLL,D.U.
5	SANSKRITIK CHETNA KE SRROT:MITHAK	Dr.Virende r bhardwaj		VOL 4,ISSUE 12 JAN 2015	ISSN 2230- 7850 International Multidisciplinar y Research Journals
6	Kabir kavya ka gyanatmak pariparekshya	Dr. Virender bhardwaj		2014	ISSN 2348- 5884,Vimal Vimarsh Varshik Shodh Patrika
7	Kabir kavya ka bhavatmak paksha	Dr. Virender bhardwaj		ANK 6-7, APRIL-SEP 2014	ISSN 2321- 2276, Anbhay Saancha
8	Andha Yug Ki Prasangikta	Dr.Virende r Bhardwaj		Ank 16,Jan- March2014	ISSN 0976- 9358, Sambhavya
9	Hindi,Bhartiya Bhasha Evam Shiksha	Dr. Virender Bhardwaj		DEC,2014	ISSN - 2231- 5063 Golden Research Thoughts
10	Shiksha-Sahi Jeevan Drishti Ki Khoj	Dr. Virender Bhardwaj		ANK-11,NOV- 2014	Sablog Patrika ISSN - 2277- 5897

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11	Chapter In Book – Jay Shankar Prasad ke Natkon me Samnjasy Chetna –Book- Hindi Natak:Nai Parakh	Dr. Jyoti Sharma	Prof. Ramesh Gautam	Vol-1	Swaraj Prakashan – ISBN NO.- 978-81-05999-99-9
12	Edited- Anujivam I Survive, Ordinary Womans Extraordinary Lives	Dr. Kanchan		2014	Shivaji college, ISBN No.- 978-93-83848-02-07
13	Research Article - Hashiyon Ka Ubhar: Aadivasi Samudaya	Dr. Kanchan		2014	Patrika- Samyak Bharat ISSN No. 2277-2553
14	Book Edited- Anujivami I Survive, Ordinary Woman's Extraordinary Lives	Dr. Vikas Sharma		2014	By Shivaji college, ISBN No.- 978-93-83848-02-07
15	Chapter In Book- Prabhakar Kshotriy ke Natak :stri prashn	Dr. Jyoti Sharma	Prof. Ramesh Gautam	Vol-1	Swaraj Prakashan – ISBN NO.- 978-81-05999-99-9
16	Hindi Dalit Rangmanch Ki Parmpara Or Swami Acchutanand	Ashok Meena		Sept- Dec 2014	Samsamyik Srajan,New Delhi, ISSN No.- 2320-5733
17	Anujivami-I Survive	Dr.Sarita		2014	978-93-83848-02-7
18	Adhure Yatharth Ki Abhivykti Ka Natak ; Dharti Aaba,	Ashok Meena		March- June,2014,Dehari, Delhi,110007	ISSN 2348-3695
19	Kavita Me Khadayan Or Akaal (Research Paper) In (Maru Vayavasaychakra Magzine)	Dr. Sarita		Jan-Mar,2014, Page No. 13-15	ISSN 2320-3889

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20	Edited Book- Anujivami-I survive		Dr. Anuj Kumar Tarun	2014	ISBN NO.- 978-93-83848- 02-7
21	Sub Edit - Anujivami -I- survive		Arvind Kumar Yadav	2014	ISBN NO.- 978-93-83848- 02-7
22	Bhasha, Sahitya Aur Sarjanatmakta (Sah Lekhan)		Dr. Virendra Bharadwa j	2013	Isbn-978-81- 250- 52630, Orient Black Swan Pvt, Ltd
23	Book: Samkaaleen rang chetna aur Naatakkaar Shankar Shesh	Dr. Darshan Pandey		2013	Sanjay prakashan. New Delhi , ISBN 978-81-7453- 428-6
24	Book : Bhisham Sahni Ke Natak : Yug Sakshya	Dr. Kanchan		2013	ISBN No. 978- 81-88075-77-9
25	Research Article - Hashiyon Ka Ubhar : Dalit Chetna	Dr. Kanchan		2013	Patrika- Samyak Bharat ISSN No. 2277-2553
26	Riti Ettar Kavaye Or Samaaj (Research Paper) In "Golden Research Thoughts"	Dr. Sarita		Dec.-2013, Vol- 3, Page No 1-5	Issn-No. 2231- 5063
27	Ghaagh Ka Kishi Varnan	Dr. Sarita		Oct-Dec 2013, Page No 59-62	ISSN-2321- 2276
28	Suchikavaye Parampra Or Kashipashah	Dr. Sarita		2013	987-81- 924877-4-8
29	Book: Mahila kathakar mannu bhandari	Dr. Anuj Kumar Tarun with co author – Anirudh kumar sudhansu		Vol-1, 2013	K L Pachauri Prakashan ISBN NO.- 978-81- 924878-1-6

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30	Article Published – Court Marshal Ki Natya Bhasha	Vikas Sharma		2012	Patrika-Aksharam , RNI No. DELHIN-2002-6969
31	Article Published-Akarshan	Vikas Sharma		2012	Patrika-Aksharam , RNI No. DELHIN-2002-6969
32	Article Published-Uchch Shiksha Me Hindi Madhyam Aur Hindi Anuvad	Vikas Sharma		Oct-Dec. 2011	ISSN No. 0003-6218
33	Dilli Vishva-Vidyalaya Ki Etihaasik Ramkatha :Bhartiya Pariprekshya	Dr.Virender Bhardwaj		Dec 2011, Ank 12.	R N I NO.-13670/2004
34	Kuch Aur Thi Ramanujan Ka Lekh Hatane Ki Vajah	Dr.Virender Bhardwaj		1-Dec-11	Navbharat Times
35	Vyavhaarik Sukti Kosh(Bhag 1 Aur 2)	Dr.Virender Bhardwaj		2010	ISBN-978-81-7453-361-6,Sanjay Prakashan
36	Chapter in book-Uttar Adhunikta Ki Avdharna Aur Hindi Natak	Dr. Kanchan	Prof. Ramesh Gautam	2010	ISBN No. 978-81-85999-99-9
37	Chapter in book - janmadhyam Or Loktantra	Dr. Kanchan	Dr . Neelam Rathi, Dr. Manju Rani	2010	ISBN No. 978-93-83629-11-4

20. Areas of consultancy and income generated - **NA**

21. Faculty as members in

- a) National committees – **Nil**
- b) International Committees –**Nil**
- c) Editorial Boards – **Nil**

22. Student projects
- Percentage of students who have done in-house projects including inter departmental/programme – **90%**
  - Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - **Nil**
23. Awards / Recognitions received by faculty and students **Dr. Jyoti Sharma has been awarded Best Teacher by Delhi Government.**
24. List of eminent academicians and scientists / visitors to the department - **Nil**
25. Seminars/ Conferences/Workshops organized & the source of funding
- National – **Nil**
  - International - **Nil**
26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		21	21	-	95%
2011-12		27	20	7	70.37%
2012-13		37	28	9	100%
2013-14		32	19	13	31.25%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	96%	12%	-
2011-12	96%	4%	-
2012-13	72.9%	27.08%	-
2013-14	81.4%	18.5%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

**- NET - 3 Students**



29. Student progression: **No Documentation**

<b>Student progression</b>	<b>Against % enrolled</b>
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.
- d) **Laboratories: N.A**

31. Number of students receiving financial assistance from college, university, Government or other agencies: **42**
32. Details on student enrichment programmes (special lectures / workshops / Seminar) with external experts - **The cultural and literary society of Department of Hindi ‘Sahitya Sangam’ organizes seminars, conferences, workshops and various competitions renowned and eminent academicians are invited to interact with the students.**
33. Teaching methods adopted to improve student learning:  
**Creative, innovative and objective teaching methods are used to**

**impart better learning to students, modern technology such as audio video aids are used.**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities **The students participate in extension programs**
35. SWOC analysis of the Department and Future plans

#### **Strengths**

- Coordination and good understanding between students and teachers
- Well Qualified faculty
- Faculty member follow an inter-disciplinary approach to impart effective education.

#### **Weakness**

- It becomes difficult for the teachers to generate interest in students from North-East region regarding the language and course work.

#### **Opportunities**

- Hindi is taught in various international universities and faculty member get regular opportunities to take part in faculty exchange programmes.
- Hindi language is also taught to other disciplines in the college.

#### **Challenges**

- Competition with other departments in performance.
- To bring about a more advanced curriculum.
- With a declining interest of young generation towards our mother tongue it is a continuous challenge to generate interest among them.
- It is difficult to persuade students from other disciplines to take Hindi subject in the Applied Language Course.

## EVALUATIVE REPORT OF THE DEPARTMENT OF HISTORY

The Self-evaluation of every department may be provided separately in about 3-4 pages, avoiding there petition of the data.

1. Name of the department: **HISTORY**
2. Year of establishment: **1961**
3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG**
4. Names of Inter-disciplinary courses and the departments/units involved:  
**As per FYUP norms**
5. Annual/semester/choice based credit system(programme wise):  
**Semester system**
6. Participation of the department in the courses offered by other departments:  
**Economics, Geography, Hindi, Mathematics, Political Science, Sanskrit, English.**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.**NA**
8. Details of courses/programmes discontinued (if any) with reasons –  
**FYUP has been discontinued by the University of Delhi.**
9. Number of Teaching posts

	Sanctioned	Filled
Professors	Nil	-
Associate Professors	8	4
Asst.Professors		1 (Permanent) + 4 (Adhoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./M.Phil. etc.)

S no.	Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 years
1	Ms. Khurshid Khan	M.Phil.	Associate Professor	Medieval Indian history	Approximately 26 years	-
2	Dr. Amarjiva Lochan	Ph.D	Associate Professor	Ancient Indian History	25 years	2 Ph.D. Students

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3	Dr Shama Mitra Chenoy	Ph.D	Associate Professor	Medieval Indian History	21 years	-
4	Mr. Mukesh Kumar Singh	M.Phil	Associate Professor		21 years	-
5	Ms. Nishtha Srivastava	M.Phil	Assistant Professor	Modern Indian History	Around 14 Years	-
6	Kundan Kumar Raj	M. Phil	Assistant Professor	Ancient Indian History	3 years	-
7	Akhtar Hassan	Ph.D	Assistant Professor	Medieval Indian History	1 year 5 months	-
8	Saranga Batra	Ph.D	Assistant Professor	Ancient Indian History	3 years 2 months	-
9	Dr. Jibraeil	Ph.D	Assistant Professor	Medieval Indian History	1 year 8 months	-

11. List of senior visiting faculty - N.A
12. Percentage of lectures delivered and practical classes handled (programmewise) By temporary faculty (Ad hoc) 50%
13. Student-Teacher Ratio (programme wise) : **B.A. (H) 24:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: **N.A**
15. Qualifications of teaching faculty with DSc/D.Litt/Ph.D/MPhil/PG. **PhD – 05, M.Phil. - 04**
16. Number of faculty with on going projects from a) National b) International funding agencies and grants received: **One faculty member involved in Innovation project funded by the University of Delhi.**
17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received **Nil**
18. Research Centre/facility recognized by the University **N.A**
19. Publications:
  - a) Publication per faculty = **2.1**
  - b) **List of Research Publications in refereed Journals**

Evaluative Report of the Department of History

S. No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. database
1	Review Amar Farooqui, Zafar and the Raj-- Anglo-Mughal Delhi c. 1800-1850,	Shama Mitra Chenoy	Studies in History	30, 2 (2014)	JNU - Sage
2	The 'Material' in History: A case study of the making of New Delhi	Ms. Nishtha Srivastava	National Level Conference- Rewriting and Rethinking of Indian History- Solapur Itihas Sansodhan Mandal and Vitthalrao Shinde Arts College	2014	(ISSN 2230-7850)
3	History and Traits of Brahmanical Culture in Thailand	Dr. Amarjiva Lochan	History Today:	Volume IX New Delhi, India pp.78-84, 2010	
4	Hindu Gods and Goddesses and their Influences on the Thai people Naming	Dr. Amarjiva Lochan	Journal of Language and Culture, Mahidol University	2013	ISSN: 01256424
5	Review Article on Cheng Ho and Islam in Southeast Asia	Dr. Amarjiva Lochan	South and Southeast Asia Culture and Religion The SSEASR Journal	2010, Volume IV, pp. 172-176	ISSN: 9770974562002

**List of Books, chapters and reading material**

S. No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Vol. No. year, Page No.	Publisher /ISSN No. / Int. database
1	Cities in Medieval India,	<b>Shama Mitra Chenoy</b>	Yogesh Sharma and Pius Malekandathil eds.	Chapter 5, "Shahjahanabad : A Medieval Indian Experience", 2014	Primus Books, Delhi ISBN 978-93-80607-99-3
2	Delhi of Mughals : Culture and Topography	<b>Shama Mitra Chenoy</b>	Jameel-ur-Rehman and Jamshed Khan eds.	Chapter 9: Persian Literature: <i>Sine Qua non</i> for Study of Later Medieval Delhi, 2014	Indo-Persian Society; Delhi <b>2014 ISBN 978-81-927023-5-3</b>
3	Buddha, Jivaka and Ayurveda in Book:	Dr. Amarjiva Lochan		2014	History of AYURVEDA : Extension of INDIAN CULTURAL VESTIGES pp. 156-165 ISBN: 978-616-279-388-2
4	Roma Gypsies a lost saga of Indian in Europe	Dr. Amarjiva Lochan		2014	India Calling Vol IV (1), Bangkok, Thailand pp. 14-16 ISSN 1906-9758
5	Letters from India 1962-1965/ Chatsumarn Kabilsingh (Bhikkhuni Dhammananda)	Dr. Amarjiva Lochan		2013	Centre for Bharat Studies, Thailand ISBN: 9786162791482
6	The Sewa Bhavana as depicted in Hinduism	Dr. Amarjiva Lochan		2013	India Calling III (2), Bangkok: Thailand ISSN 1906-9758
7	Paan in India	Dr. Amarjiva Lochan		2013	India Calling II(2-3), Bangkok: Thailand pp. 15-17 ISSN 1906-9758
8	FYUP- Foundation History Syllabus, Delhi University	<b>Shama Mitra Chenoy</b>	Jaya Tyagi and Shankar Kumar	2013	

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	<b>2 chapters-</b> Cultural Heritage and Urbanization and Urbanism				
9	Course on <i>Arts and Aesthetics</i> for classes XI and XII- chapter, "Islamic Architecture in Medieval India"	Shama Mitra Chenoy	CBSE	NCERT 2012	NCERT ISBN: 978- 93- 5007- 187- 8
10	Sanskrit Studies in Thailand in Book: Sixty Years of Sanskrit Studies (1950-2010)	Dr. Amarjiva Lochan		Vol II, 2012	DK Printworld and Rashtriya Sanskrit Sansthan, New Delhi India pp. ISBN 9788124606308
11	Re-examination of Sanskrit and Pali inscriptions of Southeast Asia. Vol. I, inscriptions of Thailand	Dr. Amarjiva Lochan		2012	Mumbai, India : Somaiya Publications ISBN:978817039284 2
12	Swami Vivekananda: A Role Model for World Peace and Harmony	Dr. Amarjiva Lochan		2012	RILCA, Mahidol University, Thailand
13	His Majesty the King's Sufficiency Economy Philosophy and Mahatma Gandhi's Self-Sufficiency Concept	Dr. Amarjiva Lochan		2011	Research Institute for Languages and Cultures of Asian Civilisations, Mahidol University, Nakonpatom, Thailand ISBN: 9789741111978
14	South and Southeast Asia Culture and Religion The SSEASR Journal, Volume I to VII	Dr. Amarjiva Lochan		2011	South and Southeast Asian Association for the Study of Culture and Religion, New Delhi ISSN: 9770974562002

20. Areas of consultancy and income generated – **Nil**

21. Faculty as members in

a) **National committees:**

- Dr. Amarjiva Lochan:
1. Indian Archaeological Society
  2. Indian History and Culture Society (Member, Executive Committee)
  3. Indian Association for the Study of Religion (IASR) Vice President

**b) International Committees:**

Dr. Amarjiva Lochan:

- International Association of Historians of Asia
- International Association of History of Religions Executive Member
- International Association for Sanskrit Studies(IASS)Consultative Member
- International Congress of Anthropology and Ethnological Sciences (ICAES)
- International Congress of Asian and North African Studies (ICANAS)
- South and Southeast Asian Association for the Study of Culture and Religion (SSEASR) PRESIDENT
- World Archaeology Congress (WAC)

**c) Editorial Boards**

Society	Faculty	Total number
IHC	Dr.Shama Mitra Chenoy	
Indian Urban History congress	Dr.Shama Mitra Chenoy	
Indian History Congress India Islamic Center Kalavid Cuultural Society (regd), Chief Convener.	Ms.Khurshid khan	
SSEASR Journal	Dr Amarjiva Lochan	Editorial Board 8 years
NVMEN	Dr Amarjiva Lochan	Editorial Board 4 years
VOIM	Dr Amarjiva Lochan	Editorial Board 2 years
Sanskrit Studies Journal	Dr Amarjiva Lochan	Editorial Board 14 years
IAHR	Dr Amarjiva Lochan	International Committee 5 years
SSEASR	Dr Amarjiva Lochan	International Committee 9 years
History Today	Dr Amarjiva Lochan	National Committee 7 years



22. Student projects
- Percentage of students who have done in-house projects including inter departmental/programme: **NIL**
  - Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: **NIL**
23. Awards/Recognitions received by faculty and students
- International Buddhism Today Award for outstanding academic excellence: Ho Chi Minh City, Vietnam (Dr. Amarjiva Lochan)
24. List of eminent academicians and scientists/visitors to the department:
- Prof RC Thakran; Prof BP Sahu; Prof Upinder Singh; Prof Ishrat Alam; Prof Farhat Hasan; Dr KK Muhammand; Dr BR Mani; Prof Arvind Sinha; Prof Narayani Gupta; Dr Yunus Jafery, Prof Basudev Chatterji; Prof Narayani Gupta; Prof Amar Farooqui; Dr Anirudh Deshpande; Prof Arvind Sinha, Prof Ishrat Alam, Prof G Ravindran; Prof Szh Zafri; Prof Alok Rai; Prof Amar Farooqui; Prof Arvind Sinha; Prof PK Basant
25. Seminars/Conferences/Workshops organized & the source of funding
- National
  - International
- Innovation project summary: Two ongoing projects (Individual) with International Agency
26. Student profile programme/ coursewise:

Name of the Course/programme (refer question no. 4)	Selected/ Appeared	Enrolled		Pass percentage
		*M	*F	
2010-11	20	17	3	40%
2011-12	21	17	4	71.42%
2012-13	28	25	3	100%
2013-14	30	25	5	63.33%

\*M=Male \*F=Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	56.89%	41.37%	1.725
2011-12	81.8%	18.18%	-
2012-13	69.76%	30.2%	-
2013-14	59.6%	40.35%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?: **No Documentation**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
<b>Employed</b>	
Campus selection	
Other than campus recruitment	
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities facilities

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.
- d) **Laboratories: N.A**

31. Number of students receiving financial assistance from college, university, government or other agencies – **39**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts –

1. National Seminar on Celebrating Delhi Through the Ages 2011  
External Experts : Prof RC Thakran; Prof BP Sahu; Prof Upinder Singh; Prof Ishrat Alam; Prof Farhat Hasan; Dr KK Muhammand; Dr BR Mani; Prof Arvind Sinha; Prof Narayani Gupta; Dr Yunus Jafery

2. National Seminar on Are Agendas driving History-Writing? 2013

External Experts: Prof Basudev Chatterji; Prof Narayani Gupta; Prof Amar Farooqui; Dr Anirudh Deshpande; Prof Arvind Sinha, Prof Ishrat Alam

3. National Seminar on Recent Historiographical Trends:

Whose account is it anyway? 2014 External Experts: Prof G Ravindran; Prof Szh Zafri; Prof Alok Rai; Prof Amar Farooqui; Prof Arvind Sinha; Prof Pk Basant

33. Teaching methods adopted to improve student learning:

The department combines the traditional 'chalk and talk' approach along with collaborative form of learning. The classrooms and labs have LCD projectors with high-end configured laptops for power point presentations required for teaching. The well connected wi-fi system of the college ensures the access to worldwide information in a matter of minutes. For practical exposure the department organizes:

1. Field Visits to Sites in around Delhi and outside.
2. Visit to National Museum: using audio visual presentation of such visits to connect students with heritage of India in class room.
3. Intra-Department quiz competition on History and Culture.
4. Inter-college student competition.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

The students and teachers have been extensively participating in Institutional Social Responsibility (ISR) and Extension activities.

- The department has organized Sensitization programme for Delhi Police.
- The students regularly visit Old Age Home.

35. SWOC analysis of the department and Future plans

**Strengths**

- The faculty comprises experienced and young, enthusiastic members.
- A healthy interaction between students and teachers is maintained.
- The faculty always strives to work towards an overall developments of students

**Weakness**

- Non-sanction of university funds for academic field excursion for students and teachers.
- Inadequate infrastructure for holding bilingual classes.

**Opportunities**

- The subject ensures that students get an edge over other disciplines in various sectors such as media, journalism, heritage management and bureaucracy.
- History as a discipline develops sensitivity among students towards the past and also inculcates a feeling of ownership towards their future.

**Challenges**

- More class rooms are required.
- History, as a discipline, makes constant efforts to sustain itself and flourish in a consumerist world.

## EVALUATIVE REPORT OF THE DEPARTMENT OF MATHEMATICS

1. Name of the department      **Mathematics**
2. Year of Establishment      **1967**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)      **UG**
4. Names of Interdisciplinary courses and the departments/units involved:  
**B.Sc. Programme (Physical Sciences and Life Sciences), Physics (Hons.), Chemistry (Hons.), Biochemistry (Hons.), Botny (Hons.), Zoology (Hons) and B.Tech (Computer Science).**
5. Annual/ semester/choice based credit system (programme wise):  
**Semester system**
6. Participation of the department in the courses offered by other departments:  
**Physics, Chemistry, Computer Science, Political Science, History, Sociology, Economics department.**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.      **NA**
8. Details of courses/programmes discontinued (if any) with reasons:  
**FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors		
Associate Professors		05
Asst. Professors	16	11 (Permanent) + 03 (Adhoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt./Ph.D. / M. Phil. etc.,)

Name of faculty	Designation. Perm. /Adhoc	qualification	Years of teaching	specialization	Students supervised
Dr.Shiv Kumar Sahdev	Associate Professor (Perm.)	Ph.D.	20	Functional Analysis, Algebra, Operational Theory Analysis	Supervised two M.Phil. students of DU and Currently supervising Ph.D of one student with D.U.

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Dr. Babita Gupta	Associate Professor (Perm.)	Ph.D.	18		
Dr. Aparna Jain	Associate Professor (Perm.)	Ph.D.	14	Fuzzy Algebraic Structures and Algebra	Currently supervising Ph.D of one student with D.U.
Dr. Mridula Budhraj	Associate Professor (Perm.)	M.A., M. Phil., Ph.D.	14	Dynamical Systems	Currently supervising Ph.D of one student with D.U.
Dr. Surbhi Madan	Associate Professor (Perm.)	Ph.D.	14	Algebraic Coding Theory	NA
Mr. Pankaj Das	Assistant Professor (Perm.)	M.Phil	11	Coding Theory	NA
Mr. Ashesh Jharwal	Assistant Professor (Perm.)	P. G.	06	NA	NA
Dr. Kumari Priyanka	Assistant Professor (Perm.)	M. Sc., M.Phil , Ph.D.	08	Sample Surveys and Statistical Inference	Currently supervising Ph.D of one student with D.U.
Dr. Vandana	Assistant Professor (Perm.)	M.Phil ., Ph.D	04Years 04Months	Functional Analysis, Operator Spaces, Operator Theory	NA
Dr. Neetu Rani	Assistant Professor (Perm.)	Ph.D.	14	Seismology, Algebra, Differential equation	NA
Mr. Uttam Kumar Sinah	Assistant Professor (Perm.)	M.Phil	10	Analysis	NA
Dr. Jeetendra Aggarwal	Assistant Professor (Perm.)	Ph.D.	5 year6 Months	General Topology and Non-Linear Analysis	NA
Dr. Shilpi Verma	Assistant Professor (Perm.)	Ph.D.	11	Optimization	NA
Ms. Deepti	Assistant Professor (Perm.)	P.G.	5	Fluid Mechanics	NA

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Mr. Jitendra Singh	Assistant Professor (Perm.)	P.G.	3	Financial Mathematics	NA
Mr. Manish Kumar Meena	Assistant Professor (Perm.)	P.G.	3 Months	Applied Mathematics	NA
Mr. Ankush Kumar	Assistant Professor (Ad-hoc)	P.G.	3	Applied Mathematics	NA
Dr. D.K. Yadav	Assistant Professor (Ad-hoc)	Ph.D	9years 6 Months	Integral Calculus, Vedic Maths, Complex Analysis	NA
Mr. Satish Kumar	Assistant Professor (Ad-hoc)	P.G.	4 Years 3 Moths	Metric Space, Topology	NA

11. List of senior visiting faculty: **NIL**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty **100%**
13. Student -Teacher Ratio (programme wise) **19.88**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled **NIL**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG.Ph.D. – **11**      **M.Phil. – 02**      **P.G. – 06**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:-  
**Two Faculty members are involved in ongoing project with funding from National Body.**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received:  
**One UGC sponsored Major Research Project is going on in the Department.**
18. Research Centre /facility recognized by the University: **NA**
19. Publications:
  - a) Publication per faculty :-**2.78**
  - b) List of Research Publications in refereed Journals

Evaluative Report of the Department of Mathematics

S No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. database
1.	Generated intuitionistic fuzzy subgroup, (t,k) equivalence relation and congruence	<b>A. Jain, Sonia</b>	Annals of Fuzzy Mathematics and Informatics	2015	ISSN:489-502
2	Linear Codes o solid Bursts and Random Errors	<b>P.K. Das</b>	Transactions on Combinatorics	2015, Vol 4. No. 2, pp. 45-55	ISSN(print): 2251-8657, ISSN(online): 22518665
3.	Solid Bursts On m-Metric Array Codes	<b>P. K. Das</b>	Southeast Asian Bulletin of Mathematics,	2015 Under publication	ISSN 0129-2021.
4.	Codes Correcting Key Errors	<b>P.K. Das</b>	TWMS J. Eng. Maths	2015	ISSN: 2146-1147
5.	Schur tensor product of operator spaces	<b>Vandana Rajpal, Ajay Kumar, Takashi Itoh</b>	To appear in Forum Mathematicum, Available on <a href="http://arxiv.org/abs/1308.4538">http://arxiv.org/abs/1308.4538</a> .	2014	Walter de Gruyter
6.	Codes on Key Errors	<b>P. K. Das</b>	Cybernetics And Information Technologies	2014	ISSN: 1311-9702
7.	Effective rotation patterns for median estimation in successive sampling	<b>Priyanka, K. and Mittal, R.</b>	Statistics in Transition-new series	2014, Vol 15, No. 2 197-220	Polish Stastical Association, Poand 1234-7655
8.	*-regularity of operator space projective tensor product of C*-algebras	Ajay Kumar and <b>Vandana Rajpal</b>	Journal of Applied Functional Analysis	2014 , Volume 9, 70-80	ISSN: 1559-1948 (PRINT), 1559-1956 (ONLINE) EUDOXUS PRESS,LL C
9.	Projective tensor product of C*-algebras	Ajay Kumar and <b>Vandana Rajpal</b>	Advances in Pure Mathematics	2014 , Volume 4, 176–188.	Science Research An Academic Publisher



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10.	$R_\delta$ -Supercontinuous functions	J.K. Kohli, B.K.Tyagi, D.Singh, <b>Jeetendra Aggarwal</b>	Demonstratio Mathematica,	2014 , Vol. 47(2) , 433-448	ISSN:0420-1213
11.	Codes on s-periodic random error of length b	<b>Pankaj Kumar Das</b>	Palestine Journal of Mathematics,	2014 , Vol. 3(2), pp.168–174	ISSN: 2219-5688.
12.	Solid Burst Error-Locating Codes Derived From Extended Hamming Code	<b>Pankaj Kumar Das</b>	International Journal of Advances in Mathematics	2014 , Vol. 1(1), pp.40-43	
13.	Searching Effective Rotation Patterns for Population Median using Exponential Type Estimators in Two-Occasion Rotation Sampling.	<b>Priyanka, K.</b> and Mittal, R.	Communications in Statistics (Theory and Methods)	2014 (In press)	Taylor and Francis, USA 0361-0926
14.	A Class of Estimators for Population Median in Two Occasion Rotation Sampling	<b>Priyanka, K.</b> and Mittal, R.	Hacettepe Journal of Mathematics and Statistics	2014 (In press)	Hacettepe University 13035010
15.	Weight Distribution of Periodic Errors and Optimal/ Anti-Optimal Linear codes	<b>P.K.Das</b>	Journal of Mathematics,	2014, Article ID 971410, pp. 1-5	Doi:10.1155/2014/971410 ISSN: 2147-6268
16.	Location and Simultaneous Correction of Burst/Solid Bursts Errors	<b>P.K Das</b>	Turkish Journal of Mathematics and Computer Science	2014, pp. 1-14, Article ID 20130040	ISSN: 2148-1830
17.	$R_z$ -Supercontinuous functions	D. Singh, B.K. Tyagi, <b>J.Aggarwal</b> , J.K. Kohli,	Mathematica Bohemica	(accepted for publication)	ISSN: 0862-7959
18.	Continuous models of Tumor induced Angiogenesis and Anti-Angiogenesis Strategy	<b>Mridula Budhraj</b> , Rashmi Wardhan, Keerti Jain Behera	Mathematical Journal of Interdisciplinary Sciences	2013 , Volume 2, No. 1,nPg. 57-75	Chitkara University ISSN 2278-9571(print) ISSN 2278-957X(online)

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19.	Difference Equations and SBEC Optimal Codes	<b>P. K. Das</b>	Journal of Mathematics and Computer Science, vol. 7(4),	2013 , Vol. 7(4), pp. 258-265	ISSN: 2008-949x.
20.	ON 2-REPEATED SOLID BURST ERRORS,	<b>P. K. Das</b>	International Journal in Foundations of Computer Science & Technology,	2013 , Vol. 3(3), pp. 41-47	ISSN: 1839-7662.
21.	Codes on m-Repeated Solid Burst Errors	<b>P.K. Das</b>	TWMS J. App. Eng. Math	2013, vol. 3(2), pp. 142-46	ISSN : 2146-1147
22.	A class of estimators for estimating the population variance in two occasions rotation patterns.	<b>Priyanka, Singh, G. N. Prasad, S., Singh, S. and Kim, J. M.</b>	Communications for Statistical Applications and Methods	2013 , Vol. 20, No. 4, 247-257	Korean International Statistical Society 2287-7843
23.	Codes Detecting and Locating Periodic Errors	<b>P. K. Das and Vinod Tyagi</b>	Journal of Theoretical Physics and Cryptography	2013 , Vol. 2, pp. 19-22	ISSN: 2322-3138.
24.	Codes Correcting Blockwise s-Periodic Errors'	<b>P. K. Das and Vinod Tyagi</b>	International Journal of Information & Network Security	2013 , Vol. 2(2), pp. 177-182	ISSN: 2089-3299.
25.	Bounds on Codes Correcting Periodic Errors Blockwise	<b>P. K. Das</b>	International Journal of Informatics and Communication Technology	2013 , Vol. 2(1), pp. 51-56	ISSN: 2252-8776.
26.	Codes correcting and simultaneously detecting solid burst errors	<b>P. K. Das</b>	Computer Engineering and Application Journal	2013 , Vol. 2(1), pp. 143-150	ISSN: 2252-4274.
27	A fuzzy optimization framework for the COTS selection	Pankaj Gupta, Hoang Pham, Mukesh Kumar Mehlatat, <b>Shilpi Verma</b>	International Journal of Fuzzy Systems	2013 , Vol. 15(2), pp. 91-109	ISSN: 1562-2479

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28	Pseudo Perfectly Continuous Functions and Closedness/ Compactness of their Function spaces,	J.K. Kohli, D.Singh, <b>Jeetendra Aggarwal</b> , M. Rana	Applied General Topology	2013 , Vol. 14(1) , 115-134.	ISSN:1989-4147 (Electronic Version, from Volume 10); ISSN:1576-9402 (from Vol.1 to Vol. 9);
29	Repeated Low-Density Burst Error Locating Codes	B.K. Dass and <b>Surbhi Madan</b>	Acta Universitatis Apulensis	2013 , No. 33,pp. 175-191	ISSN: 1582-5329
30	Blockwise Repeated Low-density Burst Error Correcting Linear Codes	B.K. Dass and <b>Surbhi Madan</b>	Italian Journal of Pure and Applied Mathematics.	2013 , 30: 87-100	ISSN:2239-0227
31	Fuzzy COTS selection for modular software systems based on cohesion and coupling under multiple applications environment	Pankaj Gupta, <b>Shilpi Verma</b> and Mukesh Kumar Mehlawat	International Journal of Applied Evolutionary Computation	2012 ,Vol. 3(4), pp. 1-18	ISSN: 1942-3594
32	Symmetry and quasi-centrality of the operator space projective tensor product	Ajay Kumar and <b>Vandana Rajpal</b>	Arch. Math.	2012 , Volume 99, 519-529	Springer, Print ISSN 0003-889X Online ISSN 1420-8938,
33	Rotation patterns under imputation of missing data over two-occasions.	<b>Priyanka</b> , Singh, G. N., Singh, V. K., Prasad, S. and Karna, J.	Communications in Statistics (Theory and Methods)	2012 , Vol.41,No .10, 1857 - 1874	Taylor and Francis, USA 0361-0926
34	Codes Detecting and Correcting Solid Burst Errors	<b>P. K. Das</b>	Bulletin of Electrical Engineering and Informatics	2012 , vol.1(3), pp. 225-232	ISSN: 2089-3191
35	Optimization model of COTS selection based on Cohesion and Coupling for modular software systems under multiple applications environment	Pankaj Gupta, <b>Shilpi Verma</b> and Mukesh Kumar Mehlawat	Lecture Notes in Computer Science	2012 , Vol. 7333, pp. 87-102	ISSN: 0302-9743

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36	COTS selection using fuzzy interactive approach	Pankaj Gupta, Mukesh Kumar Mehlawat, and <b>Shilpi Verma</b>	Optimization Letters	2012 , vol. 6, pp. 273-289	ISSN: 1862-4472
37	Closedness of certain classes of functions in the topology of uniform convergence,	J.K. Kohli, <b>Jeetendra Aggarwal</b>	Demonstratio Mathematica	2012 , Vol. 45(4), 947-952.	ISSN:0420-1213
38	Quasi cl-supercontinuous functions and their Function Spaces	J.K. Kohli, <b>Jeetendra Aggarwal</b>	Demonstratio Mathematica	2012 , Vol. 45(3), 677-697.	ISSN:0420-1213
39	Codes Detecting and Locating Solid Burst Errors	<b>P. K. Das</b>	Romanian Journal of Mathematics and Computer Science.	2012 , Vol. 2(2), pp. 1-10	ISSN 2247 – 689X.
40	Blockwise Solid Burst Error Correcting Codes,	<b>P. K. Das</b>	International Journal on Information Theory	2012 , Vol. 1(1), pp. 11-17	ISSN 2319-7609.
41	A membership function approach for cost-reliability trade-off of COTS selection in fuzzy environment	Pankaj Gupta, <b>Shilpi Verma</b> and Mukesh Kumar Mehlawat	International Journal of Reliability, Quality and Safety Engineering	2011 , Vol. 18(4), pp. 573-595	ISSN: 0218-5393
42	Syndromes of Shifts in Cyclic Codes	B.K. Dass , <b>Surbhi Madan</b>	Information Theory and Optimization Techniques in Scientific Research	2010, page no 69-88	VDM Verlag (Germany)
43	Use of imputation methods in two-occasion successive sampling.	Singh, G. N., <b>Priyanka</b>	Journal of Indian Society of Agricultural Statistics	2010 ,Vol. 64, No. 3, 417-432	Indian Society of Agricultural Statistics, India 0019-6363
44	b-SBEC Cyclic Code	<b>P. K. Das</b> , Vinod Tyagi	International Journal of Algebra	2010 , Vol.4(22), pp. 1069-1080	ISSN 1312-8868

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45	Analysis of stresses in a circumferentially reinforced curved bar subjected to in-plane shear force	M.L. Garg and <b>Shilpi Verma</b>	Reflections des ERA-JMS	2010 , Vol. 5(4), pp. 309-320	ISSN 0973-4597
46	Estimation of population mean using imputation techniques in sample surveys	<b>Priyanka, K.</b> , Singh, G. N., Kim, J. N. and Singh, S.	Journal of Korean Statistical Society	2010 , Vol. 39, No. 1, 67-74	Elsevier (Korean Statistical Society) 1226-3192
47	s-Alternate Error Correcting Linear Codes	Vinod Tyagi and <b>P. K. Das</b>	Journal of Combinatorics, Information & System Sciences	2010 , Vol. 35(1-2), 17-26	ISSN 0250-9628
48	Estimation of population mean at current occasion in presence of several varying auxiliary variates in two-occasion successive sampling.	Singh, G. N., and <b>Priyanka</b>	Statistics in Transition-new series	2010 , Vol. 11, No. 1, 105-126	Polish Stastical Association, Poand 1234-7655
49	Between Continuity and Set Connectedness	J.K. Kohli, D.Singh, Rajesh Kumar, <b>Jeetendra Aggarwal</b>	Applied General Topology	2010 , Vol. 11(1) , 43-55.	ISSN:1989-4147 (Electronic Version, from Volume 10); ISSN:1576-9402 (from Vol.1 to Vol. 9);
50	Blockwise Repeated Burst Error Correcting Linear Codes	B.K. Dass and <b>Surbhi Madan</b>	Ratio Mathematica - Journal of Applied Mathematics (Italy)	2010 , 20: 97-126	ISSN Printed 1592-7415. ISSN On line 2282-8214
51	Repeated Burst Error Locating Linear Codes	B.K. Dass and <b>Surbhi Madan</b>	Discrete Mathematics, Algorithms and Applications	2010 , 2(2): 181-188	World Scientific, Print ISSN: 1793-8309 Online ISSN: 1793-8317
52	R-Supercontinuous functions,	J.K. Kohli, D.Singh, <b>Jeetendra Aggarwal</b>	Demonstratio Mathematica	2010, Vol. 43(3), 703-723	ISSN:0420-1213

**Non-refereed but recognized and reputable journals and periodicals**

S. No.	Title of Paper	Authors	Journal	Volume No. year , Page No.	Publisher /ISSN No. / Int. database
1	Complexity Study and Chaos control in a Prey-Predator system	Mridula Budhraja, Keerti J. Behera, L.M. Saha	Journal of Advances in Mathematics	Vol. 4, No. 3, Nov. 2013 Pg. 469-477	ISSN 2347-1921

20. Areas of consultancy and income generated: **NA**

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....

	National Committees	International Committees	Editorial Boards
Dr. Shiv Kumar Sahdev	Indian Science Congress and Indian Mathematical Society	-	-
Dr. Kumari Priyanka	Life Member of Indian Society of Agricultural Statistics, New Delhi	In the panel of reviewers, Mathematical Reviewes, American Mathematical Society, USA	Associate Editor of the "Journal of Statistics and Mathematics", an international journal from Bioinfo Publication.
Dr. Vandana	Life Member of Indian Mathematical Society.	Reviewer of American Mathematical Society.	-

22. Student projects

- a) Percentage of students who have done in-house projects including inter departmental/programme: 8 students are involved in in-house project.
- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies: One student of B.Sc. (Hons.) Mathematics IIIrd Year has done two projects in ISI Delhi, with Prof. Ajit Iqbal Singh in June, 2013 and June, 2014.

23. Awards / Recognitions received by faculty and students

	Awards
Dr. Jeetendra Aggarwal	Teaching Excellence Award by University of Delhi on its Foundation day 1 <sup>st</sup> May, 2014

24. List of eminent academicians and scientists / visitors to the department
1. Prof. S. C. Arora, Department of Mathematics, University of Delhi, Delhi-110007
  2. Prof. B. K. Dass, Dept. of Mathematics, University of Delhi, Delhi-110007
  3. Prof. R. K. Sharma, Department of Mathematics, IIT Delhi
  4. Prof. Rajinder Bhatia, Ex-Director, ISI Delhi
  5. Dr. Atul Nischal,
  6. Prof. Manohar Lal, IGNOU, New Delhi
  7. Prof. Ajay Kumar, Head, Department of Mathematics, University of Delhi
  8. Prof. Ajit Iqbal Singh, ISI, Delhi
  9. Prof. Kapil H. Paranjape, I.I.S.E.R., Mohali
  10. Prof. Nikhil Srivastava, Microsoft, Bangalore
  11. Prof. B. Sury, ISI Bangalore
  12. Prof. Manish Thakur, ISI Delhi
25. Seminars/ Conferences/Workshops organized & the source of funding a) National: One workshop has been organized for students funded by Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi, The National Academy of Sciences, Allahabad, India. b) International: NA
26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		10	05	05	100%
2011-12		15	11	04	100%
2012-13		110	72	38	96.36%
2013-14		71	58	13	30.98%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	60.72%	39.28%	0
2011-12	80.21%	19.79%	0
2012-13	48.52%	51.48%	0
2013-14	45.87%	54.13%	0

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? **No Documentation**

29. Student progression:- **No Documentation**

Student progression	Against % enrolled
UG to PG	
PG to M.Phil.	
PG to Ph.D.	
Ph.D. to Post-Doctoral	
<b>Employed</b>	
Campus selection	
Other than campus recruitment	
Entrepreneurship/Self-employment	

30. Details of Infrastructural facilities

a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.

b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work

c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.

d) **Laboratories:** Department uses the computer labs for practical components of the curriculum. Apart from above infrastructure facilities, college has purchased fifty licenses of Mathematica software and one liscence of MATLAB software for the Department of Mathematics.

31. Number of students receiving financial assistance from college, university, government or other agencies: **112**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts



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Name/Title	Year	Mathematical Society Fest “Infinity”
Theme	2010 2011 2012 2013 2014	Mathematics in daily life How to study Mathematics Mathematics in other fields of study Scope of learning Mathematics Higher education in Mathematics
The number of Invited speakers	2010 2011 2012 2013 2014	01 02 01 03 07
There Names and affiliations	2010 2011 2012 2013 2014	Prof. S. C. Arora, Department of Mathematics, University of Delhi, Delhi-110007 Prof. B. K. Dass, Dept. of Mathematics, University of Delhi, Delhi-110007 Prof. R. K. Sharma, Department of Mathematics, IIT Delhi Prof. Rajinder Bhatia, Ex-Director, ISI Delhi i) Dr. Atul Nischal, ii) Paritosh, Joint Executive Manager, Uflex Limited iii) Mr. Anuj Sharma, Manager-Marketing, Bharti Airtel Limited, Gurgaon. i) Prof. Manohar Lal, Ignou, New Delhi ii) Prof. Ajay Kumar, Head, Department of Mathematics, University of Delhi iii) Prof. Ajit Iqbal Singh, ISI Delhi iv) Prof. Kapil H. Paranjape, I.I.S.E.R., Mohali v) Prof. Nikhil Srivastava, Microsoft, Bangalore vi) Prof. B. Sury, ISI Bangalore vii) Prof. Manish Thakur, ISI Delhi
Participation by students	2010 2011 2012 2013 2014	All the students of Department of Mathematics, Shivaji College and some students from other colleges of University of Delhi participated in various Mathematical events organized for students Same as above Same as above Same as above Same as above

33. Teaching methods adopted to improve student learning: **The department combines the traditional ‘chalk and talk’ approach along with collaborative form of learning. The classrooms and labs have LCD projectors with high-end configured laptops for power point presentations required for teaching. The well connected wi-fi system of the college ensures the access to world wide information in a matter of minutes.**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: Students and teachers of Department of Mathematics actively participate in the ISR and Extension activities. Moreover, the team of Innovation Project guided by two faculty members comprising eight students of the department has proposed an algorithm that suggests the optimal timings of traffic signals based on real time traffic density.

Large numbers of students of the department actively participate in extension activities of NSS, NCC, Eco Club and Cultural Society of College.

35. SWOC analysis of the department and Future plans:

#### **Strengths**

- Dedicated, sincere, highly- qualified faculty, committed to the all round development of students. The department not only teachers but also deals with personal problems of students especially those who come from illiterate and poor families.
- The department organizes Mathematics festival Infinity, in which students participate in various events like Math quiz, Paper presentation, Debate etc. which gives students an exposure.

#### **Weakness**

- Lack of educational trips for students.

#### **Opportunities**

- The department can optimally utilize departmental room with workstations meant for the faculty.
- Technology can be used for preparing and uploading lecture notes and assignments.
- The department can collaborate with private institutions to introduce courses with professional edge.
- Identify and increase job opportunities for students.

#### **Challenges**

- Motivating students to opt for the subject is a big challenge.
- Within the given infrastructure it is difficult to manage research work along with teaching schedules and college activities.

## EVALUATIVE REPORT OF THE DEPARTMENT OF PHYSICAL EDUCATION

1. Name of the department - **Physical Education**
2. Year of Establishment - **1961**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.) - **UG**
4. Names of Interdisciplinary courses and the departments/units involved- **B.A. (Prog.)**
5. Annual/ semester/choice based credit system (Programme wise): **Semester**
6. Participation of the department in the courses offered by other departments: - **N.A.**
7. Courses in collaboration with other universities, industries, foreign institutions, etc. - **Nil**
8. Details of courses/programmes discontinued (if any) with reasons – **N.A.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	NIL	
Associate Professors		01
Asst. Professors	02	01 (Adhoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Gaurav Goel	M.P.E	Associate Professor	Athletics	18 years	-
Amita Handa	M.P.E	Assistant Professor	Table Tennis	3.5 years	-

11. List of senior visiting faculty: **NIL**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty - **50%**
13. Student -Teacher Ratio (programme wise) : **500:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled - **NIL**
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG: **P.G. - 02**

16. Number of faculty with on-going projects from a) National b) International funding agencies and grants received- **NIL**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received - **NIL**
18. Research Centre /facility recognized by the University-
19. Publications:
  - a) Publication per faculty--- **5**

#### **Publications of Amita Handa**

- Author of the book, “Together with physical education.” Based on latest CBSE Syllabus, Class XII. Publications: Rachna Sagar. ISBN: 81-8137-350-2
- “Yoga and Health Education.” **JOURNAL:** Online International Interdisciplinary Research journal, (bi- monthly), Volume –IV, pg. 538-539. March 2014 special issue (**ISSN: 2249- 9598**)
- “Superstitions Behavior and Decision making in University level Athletes: An illogical phenomenon”. **JOURNAL:** International Journal of motor learning and sports performance, Volume 3, Number1, pp. 69-76; January 2014. ( **ISSN: 2230- 8628**)
- “Vegetarian Diet: Food that functions”. **JOURNAL:** Online International Interdisciplinary Research journal, (bi- monthly), Volume –IV, Jan. 2014 special issue (**ISSN: 2249- 9598**)
- “Rethinking youth leisure time”. **Proceedings:** Global scientific conference on physical education, health and sports science organized by Guru Nanak dev university, Amritsar, Punjab from 24-26 January 2014: Volume- I. (**ISBN: 978-93-8014-515-0**)
- “Modern concepts in physical education.” **Proceedings:** UGC sponsored national conference on “Inter-Disciplinary Approaches in physical education and sports” organized by the department of physical education and sports, J.E.S., R.G. Bagdia Arts, S.B. Lakhotia Comm. & R. Bezonji Sci. College, Jalna (M.S.) India from 18-19 October 2013. (**ISBN : 978-81-924376-8-2**)
- “Health and Physical Fitness in Schools.” **Proceedings:** National Conference on “Role of physical activities and sports in balancing education” jointly organized by Indira Gandhi Institute of Physical Education and Sports Sciences and Department of Physical

education and sports sciences at Indira Gandhi Institute of Physical Education and Sports Science, Vikaspuri, New Delhi from February 15-16, 2013. (ISBN : 978-81-7873-3056-3)

- “Fitness, Nutrition and Health” **Proceedings:** International conference on “Futuristic Trends in Physical education (ICFTPE), UGC sponsored, organized by department of Physical Education, Punjab University, Patiala, Punjab from Jan. 24- 26, 2013. (ISBN : 978-93-80144-63-4, vol. 2)
- “Study of Intra-Item Relationship between Physical Fitness tests.” **Proceedings:** International Conference on “Physical activities and Sports for Global Peace and Development” organized jointly by Indira Gandhi Institute of Physical Education and Sports Sciences and Department of Physical education and sports sciences at Sir Shankar Lal Hall, University of Delhi, on Oct.19 and 21, 2011. (ISBN : 978-81-902282-0-6)
- “Impact of Communication and Interpersonal skills on the management and performance of sports persons.” **Proceedings:** UGC sponsored National conference on “Physical Education:

20. Areas of consultancy and income generated - **NIL**
21. Faculty as members in: **NIL**
  - a) National committees –
  - b) International Committees –
  - c) Editorial Boards -
22. Student projects
  - a) Percentage of students who have done in-house projects including inter departmental/programme – **NIL**
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - **NIL**
23. Awards / Recognitions received by faculty and students: **NIL**
24. List of eminent academicians and scientists / visitors to the department - **NIL**
25. Seminars/ Conferences/Workshops organized & the source of funding
  - a) National – **NIL**

b) International - **NIL**

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
B.A (Prog) IIIrd year		40			99%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.A (Prog) IIIrd year	50%	50%	NIL

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.? - **N.A**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

a) **Library** - The department does not have its own library but the college library is well equipped with latest technique to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.

b) **Internet facilities for Staff & Students**- The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work

c) **Class rooms with ICT facility -- N.A.**

d) Laboratories: **N.A.**

31. Number of students receiving financial assistance from college, university, government or other agencies: **NIL**
32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts - **NIL**
33. Teaching methods adopted to improve student learning:  
**Students are shown videos of various games such as Volleyball, Basketball, Football, Chess and Cricket to understand the technique.**
34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **N.A.**
35. SWOC analysis of the department and Future plans

#### **Strengths**

- Regular coaching provided to students in games such as volleyball, basketball, football, chess & cricket.

#### **Weakness**

- Lack of supporting staff and attendants.
- Opportunities
- More courses (Theory) for students.

#### **Challenges**

- Attendance related issues with students who regularly practice on the ground so as to be Shivaji College team members for various inter-college tournaments.

## EVALUATIVE REPORT OF THE DEPARTMENT OF PHYSICS

1. Name of the department: **Physics**
2. Year of Establishment: **1971**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.):
  1. **B.Sc. (Hons.) Physics,**
  2. **B.Sc. (Gen.) Physical sciences**
  3. **B.Sc. (Gen.) Applied Physical sciences.**
4. Names of Interdisciplinary courses and the departments/units involved: **Chemistry, Computer Science and Mathematics.**
5. Annual/ semester/choice based credit system (programme wise): **Semester**
6. Participation of the department in the courses offered by other departments: **Chemistry, English and Mathematics**
7. Courses in collaboration with other universities, industries, foreign institutions, etc.: **N. A.**
8. Details of courses/programmes discontinued (if any) with reasons: **FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	12	<b>5</b>
Asst. Professors		2 (Permanent) + 9 (Adhoc)+ 1 (Adhoc) Against Leave

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. S. C. Goel	Ph.D.	Associate Professor	Equation of State	37 years	-
Dr. Manju Banerjee	Ph.D.	Associate Professor	Ionospheric Physics	33 years	Nil



Evaluative Report of the Department of Physics

Dr. A. K. Shukla	Ph.D.	Associate Professor	Solid state Physics	29 years	-
Dr. Arun Vir Singh	Ph.D.	Associate Professor	Electronics	28 years	01
Dr. S. K. Yadav	M.Phil. Ph.D.	Associate Professor	Solid State Physics	28 years	-
Ms. Bharti	M.Sc.	Assistant Professor	Condensed matter Physics	9 years	-
Ms. Mamta	M.Sc.	Assistant Professor	Electronics	8 years	-
Dr. S. S. Gaur	Ph.D.	Assistant Professor ( Ad-hoc	Electronics	11 years	-
Dr. Debjani Banerjee	Ph.D.	Assistant Professor( Ad-hoc	Nanomagnetic Materials, Spintronics	3 years	-
Dr. Sumit Kumar Rai	Ph.D.	Assistant Professor ( Ad-hoc	Theoretical High Energy Physics	3 years	-
Dr. Neeti Goel	Ph.D.	Assistant Professor ( Ad-hoc	Material science	1 years	-
Dr. Urvashi Arya	Ph.D.	Assistant Professor ( Ad-hoc	Atomic and Molecular Physics	1 years	-
Dr. Manisha Upadhyay	Ph.D.	Assistant Professor ( Ad-hoc	Material science	1 years	-
Mr. Ravindra	MPhil	Assistant Professor ( Ad-hoc	Condensed Matter Physics	5 years	-
Kashima Arora	M.Sc.	Assistant Professor ( Ad-hoc	Electronics	2 months	-
Savi Goyal	M.Sc.	Assistant Professor ( Ad-hoc	Nuclear	1 years	-
Dr. Yogesh Kumar	Ph.D.	Assistant Professor ( Ad-hoc	Condensed Matter Physics	3 years	-

11. List of senior visiting faculty: **N.A.**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty: **70%**
13. Student -Teacher Ratio (programme wise):**16:1.**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled:

	Sanctioned	Filled
Lab Assistant	09	08
Lab Attendant	07	05 Permanent + 02 (Contractual)

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG: Dsc: **Ph.D. – 12 M.Phil – 1 P.G. - 4.**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: **Two projects funded by National Body.**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received: **One ongoing project is funded by DRDO.**
18. Research Centre /facility recognized by the University: **N. A.**
19. Publications:
  - a) Publication per faculty: **2.1**
  - b) List of Research Publications in refereed Journals

S. No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. database
1	Relativistic Third-Harmonic Generation of a Laser in a Self-Sustained Magnetized Plasma	Mamta Singh, Devki Nandan Gupta	IEEE JOURNAL OF QUANTUM ELECTRONICS	2014, VOL. 50, NO. 6, Page no. 491	ISSN: 0018-9197
2	Pulse train induced rotational excitation and orientation of a polar molecule	Ashish Tyagi, Urvashi Arya, Bhavna Vidhani, Vinod Prasad	Spectrochimica Acta Part A	2014, (129), 193-200	1386-1425
3	Experimental evidence for presence of voids	Manisha Upadhyay, S. Abhaya, S.	RSC Advances	2014, 4, 3691	2046-2069

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	in phase change memory material	Murugavel and G. Amarendra,			
4	“Reagentless uric acid biosensor based on Ni microdiscs loaded NiO thin film matrix”	Kashima Arora, Monika Tomar and Vinay Gupta	Analyst	139, 2014, 4606-12	ISSN: 0003-2654
5	Effect of processing parameters for electrocatalytic properties of SnO <sub>2</sub> thin film matrix for uric acid biosensor”	Kashima Arora, Monika Tomar and Vinay Gupta	Analyst	139, 2014, 837-849	ISSN: 0003-2654
6	Fabrication of self supporting targets of lead(206,208Pb) using evaporation technique.	Savi Goyal et al.	Nuclear Inst. And Methods in Physics Research, A	2014 , Accepted. Under Print	Ms. Ref. No.: NIMA-D-14-00778R2
7	“Optical, dielectric and thermal properties of Zn-doped sodium hydrogen phthalate single crystals”	Neeti Goel, Nidhi Sinha , Binay Kumar	Optical materials	2013 , 35, 479-486.	0925-3467
8	Crystal growth, optical, mechanical and electrical properties of Inorganic material: Sodium tetraborate decahydrate	Neeti Goel, Nidhi Sinha, Binay Kumar	Mat. Res. Bull.	2013 , 48, 1632-1636.	ISSN: 0025-5408
9	Correlation between crystallization behavior, electrical switching and local atomic structure of Ge-Te glasses	Manisha Upadhyay, Sevi Murugavel	J. Non-Cryst. Solids	368 (2013) 34-39	0022-3093
10	Off-shell nilpotent finite	S. Upadhay, Sumit K Rai, &	J. Math. Phys.	2013 , 52:35123521	Print: ISSN 0022-

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	BRST/anti-BRST transformations	B. P. Mandal			2488,Online: ISSN 1089-7658
11	Finite nilpotent symmetry in Hamiltonian formulation	Sumit K. Rai, & B. P. Mandal	Int. J. Theoretical Phys.	52:35123521(2013)	Springer, ISSN: 0020-7748 (print),ISSN: 1572-9575 (online)
12	Controlling rotational dynamics and alignment of molecule by Infrared laser pulse	Urvashi Arya, Ashish Tyagi, Vinod Prasad	Spectrochimica Acta Part A	vol. 102, (2013) pp 120.	ISSN: 1386-1425
13	Field free molecular orientation control due to ramped pulses	Urvashi Arya, Vinod Prasad	Phys. Rev. A	vol. 87,035402 (2013)	1050-2947 I
14	Non-adiabatic rotational excitation of dipolar molecules in presence of delayed pulses.	Urvashi Arya, Brijender Dahiya and Vinod Prasad	Journal of Chemical Sciences	125,1213-1221 (2013)	0974-3626
15	Determination of shell correction energies at saddle point using pre-scission neutron multiplicities	Golda KS, Saxena A, Mittal VK, Mahata K, Sugathan P, Jhingan A, Singh V, Sandal R, Goyal S, Gehlot J, Dhal A, Behera BR, Bhowmik RA, Kailas S.	Nuclear Physics A	913, 157 (2013)	0375-9474
16	High spin states in $^{57}135\text{La}78$	Garg R, Kumar S, Saxena M, Goyal S, Siwal D, Palit R, Saha S, Sethi J, Sharma SK, Trivedi T, Jadav SK, Donthi R,	Physical Review C ,	87, 034317 (2013)	0556 -2813,

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		Naidu BS, Mandal S			
17	Effect of N/Z in pre-scission neutron multiplicity for $^{16}\text{O} + ^{194}\text{Pt}$ systems	Sandal R, Behera BR, Singh V, Kaur M, Kumar A, Singh G, Singh KP, Sugathan P, Jhingan A, Golda KS, Chatterjee MB, Bhowmik RK, Kalkal S, Siwal D, Goyal S, Mandal S, Prasad E, Mahata K, Saxena A, Sadhukhan J, Pal S	Physical Review C	87, 014604 (2013)	0556 -2813
18	Neutron multiplicity measurements for $^{19}\text{F} + ^{194,196,198}\text{Pt}$ systems to investigate the effect of shell closure on nuclear dissipation	Singh V, Behera BR, Kaur M, Kumar A, Sugathan P, Golda KS, Jhingan A, Chatterjee MB, Bhowmik RK, Siwal D, Goyal S, Sadhukhan J, Pal S, Saxena A, Santra, S Kailas S	PHYSICAL REVIEW C	87, 064601 (2013)	0556 -2813
19	Remarkable Enhancement in optical and thermal properties of sodium hydrogen phthalate crystals due to $\text{Fe}^{3+}$ doping	Neeti Goel, Binay Kumar	J. Crystal Growth	361(2012) 44-50.	0022-0248
20	“Enhancement in ferroelectric, pyroelectric and photoluminescence properties in dye doped TGS crystals”	Nidhi Sinha, Neeti Goel, B.K. Singh, M.K. Gupta, Binay Kumar	Journal of Solid State Chemistry	190 (2012)180-185.	ISSN: 0022-4596

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21	Non-commutative Dirac oscillator in magnetic field	B. P. Mandal , Sumit Kumar Rai	Phys. Lett. A	376, 2467- 2470, 2012	ISSN No: 0375-9601,
22	l-mixing collision in presence of Microwave field	Urvashi Arya, Brijender Dahiya and Vinod Prasad	Journal of Modern Physics	vol.3(issue-1), (2012) pp.28	2153- 1196
23	Pulse shape effect of delayed pulse on Non-adiabatic rotational Excitation	Urvashi Arya, BrijenderDahiya , Vinod Prasad	Spectrochim ica Acta Part A: Molecular and Biomolecul ar Spectroscop y	Vol. 95 (2012) pp. 491	1386-1425
24	Measurements and coupled reaction channels analysis of one- and two-proton transfer reactions for the $^{28}\text{Si} + ^{90}, ^{94}\text{Zr}$ systems.	Kalkal S, Mandal S, Jhingan A, Goyal S, Gehlot A, Sugathan P, Golda KS, Madhavan N, Garg R	Physical Review C	85, 034606 2012	0556 -2813,
25	Search for an effect of shell closure on nuclear dissipation via a neutron-multiplicity measurement	Singh V, Behera BR, Kaur M, Sugathan P, Golda KS, Jhingan A, Sadhukhan J, Siwal D, Goyal S, Santra S, Kumar A, Bhowmik RK, Chatterjee MK, Saxena A, Pal S, Kailas S	Physical Review C	86, 014609 (2012)	0556 -2813,
26	Multinucleon transfer reactions for the $^{28}\text{Si}+^{90}, ^{94}\text{Zr}$ systems in the region below and near the Coulomb barrier	Kalkal S, Mandal S, Madhavan N, Jhingan A, Prasad E, Sandal R, Nath S, Gehlot J, Garg R, Mohanto G, Saxena M, Goyal S, Verma S, Behera BR,	Physical Review C	83, 054607 (2011),	0556 -2813,

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		Kumar S, Pramanik DU, Sinha AK, Singh R			
27	“Highly sensitive and selective uric acid biosensor based on RF sputtered NiO thin film”	Kashima Arora, Monika Tomar and Vinay Gupta	Biosensors and Bioelectronics	30 (2011) 336.	ISSN: 0956-5663
28	Effect of zinc chloride on structural, optical and dielectric behaviour of solution grown anthracene crystal	Nidhi Sinha, M. K. Gupta, Neeti Goel, Binay Kumar	Physica B	406 (2011) 3206–3209	0921-4526
29	Structural study on amorphous and crystalline state of Phase change material	Manisha Upadhyay, S. Murugavel, M. Anbarasu and T. R. Ravindran	J. Appl. Phys.	110 (2011) 083711	0021-8979
30	A.C. Conduction in amorphous semiconductors,	Sevi Murugavel and Manisha Upadhyay	J. Indian Institute of Science	91 (2011) 303-317	ISSN: 0970-4140
31	Transmission electron microscopy study on Co/Fe interdiffusion in SmCo <sub>5</sub> /Fe and Sm <sub>2</sub> Co <sub>7</sub> /Fe/Sm <sub>2</sub> Co <sub>7</sub> thin films	Y. Zhang, M. J. Kramer, Debjani Banerjee, Ichiro Takeuchi and J. P. Liu	Journal of Applied Physics	110-2011 53914	American Institute of Physics/ Print: ISSN 0021-8979 Online: ISSN 1089-7550
32	Various forms of BRST Symmetry in Abelian 2-form gauge theory	Sumit K. Rai, & B. P. Mandal	Mod. Phys. Lett. A	26 :913-924, 2011.	Print ISSN: 0217-7323, Online ISSN: 1793-6632
33	Finite Nilpotent symmetry in Batalin-Vilkovisky formulation	B. P. Mandal ,S. K. Rai, & S. Upadhyay	Euro. Phys. Lett	9221001(2010 )	ISSN 0295-5075 (Print),ISS N 1286-4854 (Online)
34	New forms of BRST symmetry in rigid rotor	Sumit. K Rai, B. P. Mandal	Mod. Phys. Lett. A	25 , 2281-2288 (2010)	Print ISSN: 0217-7323,Online ISSN: 1793-6632,

35	Channel coupling effects on the fusion excitation functions for $^{28}\text{Si}+^{90}\text{Zr}$ in sub- and near-barrier regions	Kalkal S, Mandal S, Madhavan N, Prasad E, Verma S, Jhingan A, Sandal R, Nath S	Physical Review C	81, 044610 (2010)	0556 -2813,
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**List of Books, chapters and reading material.**

Sno.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year, Page No., issue	Publisher /ISSN No. / Int. database
1	Generalized-BRST symmetry and its application	Sumit Kr. Rai and B. P. mandal		2014	LAP LAMBERT Academic Publishing (ISBN 978-3-659-62320-2)

20. Areas of consultancy and income generated: **N.A.**
21. Faculty as members in
  - a) National committees - **Nil**
  - b) International Committees - **Nil**
  - c) Editorial Boards.... **Nil**
22. Student projects
  - a) Percentage of students who have done in-house projects including inter departmental/programme – **6%**
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies - **NIL**
23. Awards / Recognitions received by faculty and students: Faculty: **NIL**
24. List of eminent academicians and scientists / visitors to the department: **NIL**
25. Seminars/ Conferences/Workshops organized & the source of funding
  - a) National: **NIL**
  - b) International: **NIL**
26. Student profile programme/course wise:



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Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		09	05	04	88.88%
2011-12		38	26	12	81.57%
2012-13		82	59	23	36.58%
2013-14		43	34	09	41.86%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	53.28	46.71	-
2011-12	65.57	32.78	16.39
2012-13	58.10	41.89	-
2013-14	16.07	83.92	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.? **No Documentation**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities:

- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) **Internet facilities for Staff & Students-** The University of Delhi

has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work

c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.

d) **Laboratories:** The department has well equipped laboratories.

31. Number of students receiving financial assistance from college, university, government or other agencies: **44**

32. Details on student enrichment programmes (special lectures / workshops /seminar) with external experts: **NIL**

33. Teaching methods adopted to improve student learning: **Extensive Black Board Teaching, Interactive Tutorial session, Academic counselling of the students, well equipped laboratories, Audio-Visual interaction, Disbursal of Laptops to individual students.**

34. Participation in Institutional Social Responsibility (ISR) and Extension activities:

Students of IInd year are associated with, SANKALP (NGO) which aims are providing coaching to economically weak students.

35. SWOC analysis of the department and Future plans

#### **Strengths**

- Teaching experience of faculty members.
- Research excellence of faculty members.
- Close student faculty relationships.
- Well-equipped laboratories with qualified dedicated staff team.
- Peaceful Environment and good infrastructure.
- Freedom to teachers by the principal and management for the development in subject.
- Faculty with willingness to take challenging assignments.

#### **Weakness**

- Lack of internal funds to support students or research.

- Lack of international students.
- Aptitude of the students for higher learning is poor.
- Limitation to conduct extension programmes.
- Lack of research oriented work.

### **Opportunities**

- Improve best teaching policies.
- Partnering with associated institutes.
- Students are taught electronics and computers over three years of undergraduate studies which allows them to pursue their career in these area as well
- Increased involvement in visible events (conferences, networking, industry days).

### **Challenges**

- Declining trend of students towards pure sciences.
- To improve the student's skill (technical and communication) to fulfil the expectation of companies and industries.
- Threat from increasing number of corporate colleges.
- Ability to send our students for summer training to companies.
- Getting placements and good academic records for the lateral entry students.

## EVALUATIVE REPORT OF THE DEPARTMENT OF POLITICAL SCIENCE

1. Name of the Department - **Political Science**
2. Year of Establishment - **1961**
3. Names of Programmes/Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; integrated Ph.D., etc.) - **UG and PG**
4. Names of Interdisciplinary courses and the departments/units involved  
**Reading Gandhi, Citizenship in A Globalizing World, Understanding Ambedkar (For Honours Courses / Humanity Group) And Gandhi And The Contemporary World (Allied Course)**
5. Annual/semester/Choice based Credit System (Programme wise)  
**Semester**
6. Participation of the department in the courses offered by other departments  
**Reading Gandhi, Reading Gandhi, Citizenship In A Globalized World, Understanding Ambedkar (For Honours Courses / Humanity Group) And Gandhi And The Contemporary World (A.C)**
7. Courses in collaboration with other universities, industries, foreign institutions, etc. - **NA**
8. Details of courses/programmes discontinued (if any) with reasons:  
**FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	9	4
Asst. Professors		5 Adhoc

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D./M.Phil.etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students Guided for the Last 4 years
Santosh Duggal Permanent	M.A.	Associate Professor	IR	45	-
Dinesh Yadav	MA., M.Phil, Ph.D	Associate Professor	IFP	40 years	-

Evaluative Report of the Department of Political Science

V.P.S Malik	MA.,M.PHIL, PH.D	Associate Professor	IGP	40 years	-
S.S. Rana	MA, M.PHIL,PH.D	Associate Professor	Nat. and col.in India	35 years	-
Vikas Verma	MA, M.PHIL.	Assistant Professor	IGP	10 years	-
Bishnu Satapathy	MA, M.PHIL	Assistant Professor	IGP	12 years	-
Alka Mudgal	MA, M.PHIL,PH.D	Assistant Professor	IR	4 years	-
Malvika Singh	MA, M.PHIL,PH.D	Assistant Professor	IGP	4 years 5 months	-
Anjaiah Sundu	MA, M.PHIL,PH.D	Assistant Professor	CDG	4 years	-

11. List of senior visiting faculty - **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) By temporary faculty:- **50**
13. Student-Teacher Ratio (programme wise):- **55:1**
14. Number of academic support staff (technical)and administrative staff ;sanctioned and filled N.A.
15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil/ PG.  
**Ph.D. – 5 M.Phil. – 3 P.G. - 1**
16. Number of faculty with ongoing projects from  
a) National: - **2** b) International funding agencies and grants received: - **Nil**
17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received:- **Nil**
18. Research Centre/facility recognized by the University:-**Nil**
19. Publications:
  - a. Publication per faculty –
  - b. Non-refereed but recognized and reputable journals and periodicals.

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S. No.	Title of Paper	Authors	Journal	Volume No. year , Page No.	Publisher /ISSN No. / Int. database
1	Rights, Major Debates Judiciary In India: Access to Justice	Bishnu Satapathy	Illl, Delhi University	Website www.vle.du.ac.in 2014	ISSN: 2349-154x
2	Lessons Forom Bundhel Khand	Malvika Singh		March 2014, The Hindu Survey of Indian Agriculture Annual Booklet	

20. Areas of consultancy and income generated **NA**
21. Faculty as members in
  - a) National committees - **Nil**
  - b) International Committees - **Nil**
  - c) Editorial Boards.... - **Nil**
22. Student projects
  - a) Percentage of students who have done in-house projects including inter departmental/programme - **Nil**
  - b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies – **Nil**.
23. Awards/Recognitions received by faculty and students - **Nil**.
24. List of eminent academicians and scientists/visitors to the department.
  - a) Prof. Manoranjan Mohanty, Department of Political Science, University of Delhi
  - b) Prof. M.P.Singh, Department, of Political Science, University of Delhi
  - c) Prof. Shanta Sinha, Chairperson, the National Commission for Protection of Child Rights (NCPCR).
  - d) Prof. Subroto Mukharjee, Department of Political Science, Delhi of University.
25. Seminars/Conferences/Workshops organized & the source of funding a) National b) International

26. Student profile programme/ course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		27	22	5	81.48%
2011-12		34	26	8	97.05%
2012-13		40	31	9	100%
2013-14		50	37	13	56%

\*M=Male \*F=Female

27. Diversity of Students

Name of the Course	%of students from the same state	% of students from other States	%of students from abroad
2010-11	79.62%	18.51%	1.85%
2011-12	82.8%	17.18%	-
2012-13	64.86%	32.43%	2.70%
2013-14	75%	21.8%	3.12%

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defence services, etc.? **No Documentation**

29. Student progression: **No Documentation**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b> Campus selection Other than campus recruitment	-
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities
- a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
  - b) **Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
  - c) **Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity
  - d) **Laboratories:** NA
31. Number of students receiving financial assistance from college, university, Government or other agencies: **106 Students**
32. Details on student enrichment programmes (special lectures/workshops/seminar) with external experts:

**Kindly refer to the details in Question no 24.**

33. Teaching methods adopted to improve student learning:
- The department combines the traditional ‘chalk and talk’ approach along with collaborative form of learning. The classrooms and labs have LCD projectors with high-end configured laptops for power point presentations required for teaching. The well connected wi-fi system of the college ensures the access to worldwide information in a matter of minutes.
34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **Nil**
35. SWOC analysis of the department and Future plans

#### **Strengths**

- Teachers help students in sorting out their doubts and queries beyond the classrooms by giving them extra time whenever they are free.
- They make extra efforts in identifying students who need special attention and take remedial action.



- Special classes are arranged for students preparing for their post graduate entrance examinations in universities like JNU and University of Delhi.
- Career counselling is another special attraction of the department as students coming from the weaker sections benefit from it. Teachers undertake skill development programmes to upgrade their teaching and research skills.

#### **Weaknesses**

- Lack of bifurcation of English and Hindi medium students often hampers the interests of students as well as teachers.
- Enhancement of research-related activities along with financial assistance at the college level is an area calling for urgent attention.
- Special provisions for procuring reference material in the form of books, journals and periodicals.

#### **Opportunities**

- Subject can be made popular among students desirous of joining civil services, journalism, NGO sector and other international organizations such as WTO, world bank etc.

#### **Challenges**

- It is challenging for the department to motivate students coming from rural areas and marginalized sector and give them proper orientation regarding the course.
- More than 80% students have Hindi language as their medium of instruction. However, the study material pertaining to the new syllabus is not available in Hindi medium. The faculty members themselves prepare the course material in Hindi to meet the needs of the students' interest to the best of their abilities.

## EVALUATIVE REPORT OF THE DEPARTMENT OF SANSKRIT

1. Name of the department: **Sanskrit**
2. Year of Establishment: **1961**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG and PG**
4. Names of Interdisciplinary courses and the departments/units involved. **Hindi, History and Political Science**
5. Annual/ semester/choice based credit system (programme wise): **Semester**
6. Participation of the department in the courses offered by other departments: **NA**
7. Courses in collaboration with other universities, industries, foreign institutions, etc. **NA**
8. Details of courses/programmes discontinued (if any) with reasons – **FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	-	-
Associate Professors	4	1
Asst. Professors		3

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. R.K. Vasishtha	M.A., Ph.D	Associate Professor	Indian Epigraphy	29 years	1 Ph.D 4 M.Phil.
Dr. Rajneesh	M.A., Ph.D.	Assistant Professor	Veda	3.5 years	N.A
M.R. Meena	M.A., M.Phil	Assistant Professor	Upanished and Advaita Vedanta	6 months	N.A
Dr. Sukhram	M.A., Ph.D.	Assistant Professor	Sanskrit Grammer	2 years 8 months	N.A.

11. List of senior visiting faculty – **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty (Ad hoc) – **Nil**
13. Student – Teacher Ratio (programme wise): **24:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled: sanctioned and filled: **NIL**
15. Qualifications of teaching faculty with DSc/ D.Litt/ **Ph.D.** – **3 M.Phil 1**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received: - **NIL**
17. Departmental projects funded by DST – FIST; UGC, DBT, ICSSR, etc. and total grants received **Nil**
18. Research Centre /facility recognized by the University **Nil**
19. Publications:
  - a) Publication per faculty – **3.5**
  - b) **List of Research Publications in refereed Journals**

S.No.	Title of Paper	Authors	Journal	Volume No. year , Page No.	Publisher /ISSN No. / Int. database
1	Sankaravedante Kasmirsaivadarshane ch Varnitam Pramatu swaroopam	Meghraj Meena	Bharati	Volume No. 4, Year 2014, Page NO. – 5-7	Bharati Sanskritmasik Bhartibhawan Jaipur, ISSN: 2249-698X
2	Vedic Vangmay mein Sarira ki Avdharana	Meghraj Meena	340edanta340 manjari	Volume No. 3, Year 2014, Page NO. – 84-89	Delhi Sanskrit Academy

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3	Manas tatva ka paryalochann – kathopanishad ke vishesh sandarbh mein	Meghraj Meena	Raso	Volume No. 3-4, Year 2013, Page NO. 53-57	Srijan Sansthan Ajmer, ISSN: 0976-7452
4	Vedo me samajik adhyayan	Dr. Rajneesh	Internati onal	2013, Page No. – 254 -259	Acharya Academy Bharat /2249-2976
5	Adait Vedanta evam Adhunik Vigyan mein chetna ka swaroop	Meghraj Meena	Sahityaa mritam	Volume No. 4, Year 2013, Page NO. – 85-92	Sanskrit Dept Ismail National Mahila PG College, Meerut, ISSN: 2230-8652
6	Pramukh Upanishadon mein Sarira ke roopak	Meghraj Meena	Abhyuda ya	Volume No. 2.2., Year 2013, Page NO. 95-98	Vidyapati Prakashan ISSN: 2320-4176
7	mundaka Upanishad evam taittiriya Upanishad mein pran tatva ka swaroop	Meghraj Meena	Abhyuda ya	Volume No. 2.1., Year 2013, Page NO. 104-107	Abhishek Prakashan ISSN : 2320-4176
8	Advait 341 edanta mein mein sukshma Sarira evam chetna ka manovigyanik Adhyayan	Meghraj Meena	PURVA MIMAA NSAA	Volume – 4 No. 1-2, Year 2013, Page NO. 269-278	Sanatan Dharma College (Lahore) Ambala Cantt, Haryana, 2013. ISSN: 0976-0237

**Non-refereed but recognized and reputable journals and periodicals**

Sno.	Title of Paper	Authors	Journal	Volume No. year ,	Publishe r /ISSN No. / Int. database
				Page No.	
1	Ritvik shabd ka arthparak vishleshan	Sukhram	aheen dvadashratr mahasomya g	2014	I.S.B.N. 978-81-7876-171-8, Ved

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2	Arthvigyan evm Paniniya Vyakaran	Sukhram	VITHIKA	page no. 94-100, Sept 2013	2231-1130, Sanskrit grammar
3	ref Rikar evm Lrikar ka dhvanyatmaka vishlena: prathshakhya evm paniniya shiksha ke sandarbha me	Sukhram	GURUKU L PATRIKA	year 65/3-4 Ank	0976-8017, Sanskrit grammar

**List of Books, chapters and reading material**

Sno.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year , Page No., issue	Publisher /ISSN No. / Int. database
1	Rupchandrika	Sukhram	Sukhram	2014	978-81-7110-488-8
2	Atharvaveda ;Ek Parichaya	Dr. Rajneesh		2011	Vidyanidhi Prakashan/ISBN : 978-93-80651-15-6
3	Book titled as “Śarīra evam Indriya kī Aupanishad Avadhāranā : Ādhunika Cintana ke Paripreksya mein”	Meghraj Meena		2014	Vidyanidhi Prakashan, Delhi/ ISBN: 978-93-80651-79-8

20. Areas of consultancy and income generated – **Nil**
21. Faculty as members in
- National committees :- **Nil**
  - International Committees :- **Nil**
  - Editorial Boards :- **Nil**
22. Student projects
- Percentage of students who have done in-house projects including inter departmental/programme :- **NIL**

- b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies :- **NIL**

23. Awards / Recognitions received by faculty and students:

Mr. Meghraj Meena	Sanskrit talent Award (Four Times) honoured By Delhi Sanskrit Academy	2012
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24. List of eminent academicians and scientists / visitors to the department: **NIL**

25. Seminars/ Conferences/Workshops organized & the source of funding :National/International:- **NIL**

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Applications received	Selected/ Appeared	Enrolled		Pass percentage
			*M	*F	
2010-11		0	-	-	0%
2011-12		2	1	1	100%
2012-13		4	2	2	100%
2013-14		10	8	2	30%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	85%	15%	-
2011-12	92.8%	2.14%	-
2012-13	95.23%	4.76%	-
2013-14	91.89%	8.10%	-

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.- **No Documentations**

29. Student progression need information:- **No Documentations**

<b>Student progression</b>	<b>Against % enrolled</b>
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities
- a) Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.
- b) Internet facilities for Staff & Students-** The University of Delhi has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work
- c) Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity
- d) Laboratories:** N.A.
31. Number of students receiving financial assistance from college, university, government or other agencies : **14**
32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **NIL**
33. Teaching methods adopted to improve student learning: The department combines the traditional 'chalk and talk' approach along with collaborative form of learning. The classrooms and labs have LCD projectors with high-end configured laptops for power point presentations required for teaching. The well connected wi-fi system of the college ensures the access to world wide information in a matter of minutes
34. Participation in Institutional Social Responsibility (ISR) and Extension activities:- **NIL**

35. SWOC analysis of the Department of Sanskrit **Department of Sanskrit**  
**- SWOC analysis**

**Strengths**

- The Faculty exhibits dynamic leadership
- The Department comprises an amalgam of young and vibrant faculty
- Focused approach as per specialty

**Weakness**

- The curriculum does not generate interest.

**Opportunities**

- The increasing interest from academia as well as industry in the ancient Indian repository of knowledge which is primarily available in Sanskrit has led to rising demand for Sanskrit experts.

**Challenges**

- There is a declining interest in the subject. It is a continual challenge to generate interest among students.



## EVALUATIVE REPORT OF THE DEPARTMENT OF ZOOLOGY

1. Name of the department: **Zoology**
2. Year of Establishment: **1961**
3. Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.): **UG**
4. Names of Interdisciplinary courses and the departments/units involved:  
**B.Sc (P) Life Sciences, B.Sc.(H) Chemistry, B.Sc.(H) Botany, B. Sc. (P) Applied Physical Sciences, B.Sc (P) Physical Sciences**
5. Annual/ semester/choice based credit system (programme wise)  
**Semester System**
6. Participation of the department in the courses offered by other departments  
**Mathematics, Computer skills, English, Chemistry and Botany**
7. Courses in collaboration with other universities, industries, foreign institutions, etc. - **None**
8. Details of courses/programmes discontinued (if any) with reasons:  
**FYUP has been discontinued by the University of Delhi.**
9. Number of teaching posts

	Sanctioned	Filled
Professors	Nil	Nil
Associate Professors	9	1
Asst. Professors		4 (Permanent) + 5 (Adhoc)

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.,)

Name	Qualification	Designation	Specialization	No. of Years of Experience	No. of Ph.D. Students guided for the last 4 years
Dr. Indra Chaudhary	Ph.D	Associate Professor	Freshwater Biology/Rotifers	31 years 6 months	-
Dr. Sunita Gupta	Ph.D	Assistant Professor	Environmental toxicity	10 years	-
Dr. Deepika Yadav	Ph.D.	Assistant Professor	Environmental Biology	7 years	-
Mr. Manish Kr. Sachdeva	M. Phil	Assistant Professor	Entomology	9 years	-

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Ms. Nimita Kant	M.Sc.	Assistant Professor	Reproductive Physiology	7 years	-
Dr. Aeshna Nigam	Ph.D.	Assistant Professor	Cell and Molecular Biology	3 years 3 months	-
Dr. Parul Kulshreshtha	Ph.D.	Assistant Professor	Biotechnology and Immunology	1 year 9 months	-
Dr. Jitendra Kumar Chaudhary	Ph.D.	Assistant Professor	Molecular and Cellular Stem Cell Biology	1 year 9 months	-
Dr. Ankita Dua	Ph.D.	Assistant Professor	Molecular Biology	6 months	-
Dr. Rashmi Singh	Ph.D.	Assistant Professor	Cytogenetics and molecular Biology	1 year	-

11. List of senior visiting faculty - **Nil**
12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty **B.Sc. (H) Zoology- 50% B.Sc (P) Life Sciences- 100%**
13. Student -Teacher Ratio (programme wise) **B.Sc. (H) Zoology- 10:1**
14. Number of academic support staff (technical) and administrative staff; sanctioned and filled-

	Lab Assistant	Attendant
Sanctioned	5	4
Filled	2	2+1 (Contractual)

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph.D/ MPhil / PG: **Ph.D.- 8 M.Phil- 1 M.Sc.- 1**
16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received:  
**One faculty member involved in Innovation project funded by the University of Delhi**
17. Departmental projects funded by DST - FIST; UGC, DBT, ICSSR, etc. and total grants received- **Nil**
18. Research Centre /facility recognized by the University- **Nil**
19. Publications
  - Publication per faculty: **3.6**

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- Number of papers published in peer reviewed journals (national /international) by faculty and students: **33**

S. No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. Database
1	Modification of Rifamycin Polyketide Backbone Leads to Improved Drug Activity Against Rifampicin-Resistant Mycobacterium tuberculosis.	Nigam, A., Almabruk, K.H., Saxena, A., Yang, J., Mukherjee, U., Kaur, H., Kohli, P., Kumari, R., Singh, P., Zakharov, L.N., Singh, Y., Mahmud, T., Lal R.	J Biol Chem	2014, 289 (30), 21142-21152	ISSN 0021-9258 Impact factor 4.6
2	Emergence of global scientific misconduct: relevant ethical concerns and step forward	Kour, S. and Chaudhary, J.K.	JSDC	2014, 1(3), 134-136	ISSN-2348-7038 Impact factor-NA
3	Ph.D. and research: Treading a difficult path	Chaudhary, J.K.	JSDC	2014, 1(5), 221-223	ISSN-2348-7038 Impact factor-NA
4	“Functional characterization of WalRK: A two-component signal transduction system from Bacillus anthracis.”	Alisha Dhiman, Sonika Bhatnagar, Parul Kulshreshtha, Rakesh Bhatnagar.	FEBS Open Bio,	4, 2014, 65–76	Elsevier/2211-5463 Impact factor 4
5	Microbial and genetic ecology of tropical Vertisols under intensive chemical farming.	Malhotra, J., Aparna, K., Dua, A., Sangwan, N., Trimurtulu, N., Rao, DLN and Lal, R	Environ. Monit. Assess	2014, . 187:4081	ISSN: 0167-6369; Impact factor 1.679
6	Bacterial diversity and real-time PCR based assessment of linA and	Lal, D., Jindal, S., Kumari, H.,	J Basic Microbiol	2013, 53,1-11	ISSN-1521-4028 Impact

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	linB gene distribution at hexachlorocyclohexane contaminated sites	Jit, S., Nigam, A., Sharma, P., Kumari, K. and Lal, R			factor 1.822
7	Research scenario: crucial issues and challenges from a researcher's perspective	Chaudhary JK	Society of Biological Chemist (SBC) Newsletter.	2013, Vol. 103, Page 7	
8	Devosia lucknowensis sp. nov., a bacterium isolated from hexachlorocyclohexane (HCH) contaminated pond soil.	Dua, A., Malhotra, J., Saxena, A., Khan, F., Lal, R	J. Microbiol	2013, 51:689-94	ISSN: 1225-8873 Impact factor 1.529
9	Draft genome sequence of Agrobacterium sp. UHFBA-218 isolated from rhizosphere soil of crown gall infected Prunus sp. rootstalk-Colt	Dua, A., Sangwan, N., Kaur, J., Saxena, A., Kohli, P., Gupta, A.K. and Lal, R	Genome Announc	2013, 1(3),e00302-13	ISSN: 2169-8287 Pending
10	Draft genome sequence of Sphingobium ummariense Strain RL-3, a hexachlorocyclohexane-degrading bacterium	Kaur, P., Dua, A., Sangwan, N., Oldach, P., Khurana, J.P. and Lal, R	Genome Announc	2013, 1(6):e00956-13.	ISSN: 2169-8287 Pending
11	Sphingopyxis indica sp. nov., isolated from a high dose point hexachlorocyclohexane (HCH) contaminated dumpsite	Jindal S., Dua, A. and Lal, R.	Int. J. Sys. Evol. Microbiol	2013,63: 2186- 2191	ISSN: 1466-5026 Impact factor 2.798
12	Genetic variation in two species of fruit flies of the genus Bactrocera (Dacinae: Tephritidae: Diptera).	Rashmi Singh and Akansha Singh	International Journal of Pharma and Biosciences,	2013, 4(2): 617-623.	ISSN- 0975-6299 Impact Factor 0.67
13	Genome sequence of Acinetobacter sp. HA isolated from the gut of polyphagous insect pest Helicoverpa armigera.	Malhotra, J., Dua, A., Saxena, A., Sangwan, N., Mukherjee, U., Pandey, N., Raman,	J. Bacteriol	2012, 194, 5156	ISSN: 0021-9193 Impact factor 3.298

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		R., Khurana, P., Khurana, J.P. Lal, R			
14	Novosphingobium lindaniclasticum sp. nov., a hexachlorocyclohexane (HCH) degrading bacterium isolated from HCH Dumpsite	Saxena, A., Anand, S., Dua, A., Sangwan, N., Khan, F and Lal, R	Int. J. Sys. Evol. Microbiol	2012, 63: 2160-2167	ISSN: 1466-5026 Impact factor 2.798
15	Comparative metagenomic analysis of soil microbial communities across three hexachlorocyclohexane contamination levels.	Sangwan, N., Lata, P., Dwivedi, V., Singh, A., Niharika, N., Kaur, J., Anand, S., Malhotra, J., Jindal, S., Nigam, A., Lal, D., Dua, A., Saxena, A., Garg, N., Verma, M., Kaur, J., Mukherjee, U., Gilbert, J.A., Dowd, S.E., Raman, R., Khurana, P., Khurana, J.P., Lal, R	PLoS ONE	2012, 7(9), 1-12	ISSN 1932- 6203 Impact factor 3.534
16	Genome sequence of Sphingobium indicum B90A, a hexachlorocyclohexane-degrading bacterium	Anand, S., Sangwan, N., Lata, P., Kaur J., Dua, A., Singh, A., Verma, M., Kaur, J., Khurana, J.P., Khurana, P., Mathur, S. and Lal, R	J. Bacteriol	2012, 194, 4471-4472	ISSN 1098- 5531 Impact factor 2.798
17	Cell Cycle Arrest and Apoptosis by Expression of a Novel TPIP (TPIP-C2) cDNA encoding a C2-	Mishra RR, Chaudhary JK and Rath, PC	Molecular Biology Report	2012, 39; 7389-7402	ISSN:1573- 4978 Impact factor 4.411

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	Domain in HEK-293 cells				
18	“Active immunization of S-layer homology motif protects mice model from anthrax challenge.”	Parul Kulshreshtha , Hemant Jaiswal, Sneha Agarwal and Rakesh Bhatnagar.	Molecular Immunology.	50(1-2), 2012, 18-25.	Elsevier/ 0161-5890 Impact factor 2.9
19	Draft Genome Sequence of Thermus sp. RL Isolated from Hot Water Spring Located atop the Himalayan Ranges at Manikaran, India	Dwiwedi, V., Sangwan, N., Nigam A., Niharika, N., Khurana, P., Khurana, J., and Lal, R.	J Bacteriol	2012, 194(13), 3534	ISSN 1098-5530 Impact factor 2.69
20	Temporal variation among populations of house fly <i>Musca domestica</i> (Diptera: Muscidae)	Saumya Srivastava, Rashmi Singh and R.R. Tewari	International Journal of Pharma and Biosciences,	3: 254-260. 2012	ISSN-0975-6299 Impact Factor 0.67
21	Genetic variation among fruit flies of the genus <i>Bactrocera</i> (Diptera: Tephritidae: Dacinae).	Rashmi Singh and R.R. Tewari.	Proceedings of the National Academy of Sciences, India Section B: Biological Sciences	DOI 10.1007/s40011-012-0023-3. 2012	ISSN-0369-8211 Impact factor 0.19
22	Stress response of polytene chromosomes of <i>Sarcophaga ruficornis</i> (Fab.) (Sarcophagidae: Diptera) to lead nitrate.	Akanksha Singh, Rashmi Singh, Uma R. Agrawal and R.R. Tewari	International Journal of Pharma and Biosciences,	2012, 3(3)B: 578-583.	ISSN-0975-6299 Impact Factor 0.67
23	India losing battle against multi drug resistant tuberculosis (News and Views)	Saxena, A., Mukherjee, U., Dua, A. and Lal, R.	Indian. J Microbiol	2012, 52, 713	ISSN-0973-7716 Impact factor 0.832
24	“Inhibition of anthrax toxins with a bispecific monoclonal antibody that cross reacts with edema factor as well as lethal factor of <i>Bacillus anthracis</i> . “	Parul Kulshreshtha and Rakesh Bhatnagar	Molecular Immunology	48(15-16), 2011, 1958-65.	Elsevier/ 0161-5890 Impact factor 2.9

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25	Whole Genome Sequence of Rifamycin B producing <i>Amycolatopsis mediterranei</i> S699	M Verma, J Kaur, M Kumar, K Kumari, A Saxena, S Anand, Nigam A, V Ravi, S Raghuvanshi, P Khurana, A K. Tyagi, J P. Khurana, Rup Lal	J Bacteriol	2011, 193, 5523-5524	ISSN 1098-5531 Impact factor 2.69
26	A Novel Human TPIP Splice-Variant (TPIP-C2) mRNA, Expressed in Human and Mouse Tissues, Strongly Inhibits Cell Growth in HeLa Cells	Mishra RR, Chaudhary JK, Bajaj GD, Rath PC	PLoS ONE	2011, 6 (12): e28433.	eISSN-1932-6203 Impact factor 4.411
27	Genetic characterization of <i>Bactrocera</i> ( <i>Dacus</i> ) flies (Diptera: Tephritidae) based on RAPD- PCR.	Rashmi Singh, N. Bajpai and R.R. Tewari	International Journal of Pharma and Biosciences,	2: 498-503. 2011	ISSN-0975-6299 Impact Factor 0.67
28	Allozyme analysis for assessing genetic variation in the species <i>Bactrocera diversa</i> and <i>B. zonata</i> (Dacinae: Tephritidae).	Rashmi Singh, Akanksha Singh, Uma R. Agrawal and R.R. Tewari	International Journal of Pharma and Biosciences,	2: 193-199. 2011	ISSN-0975-6299 Impact Factor 0.67
29	<i>Sphingomonas histidinilytica</i> sp. nov. isolated from hexachlorocyclohexane (HCH)- dumpsite, India.	Nigam, A., Jit, S and Lal, R.	Int. J. Syst. Evol. Microbiol.	2010, 60, 1038- 1043	ISSN-1466-5034 Impact factor 2.798
30	<i>Sphingopyxis ummariensis</i> sp. nov., isolated from hexachlorocyclohexane (HCH)-dumpsite in north India	Sharma, P., Verma, M., Bala, K., Nigam, A and Lal, R	Int. J. Syst. Evol. Microbiol.	2010, 60, 780-784	ISSN-1466-5035 Impact factor 2.798
31	A New Life in a Bacterium through Synthetic Genome:	Anand, S., Malhotra, J., Dua, A.,	Indian. J Microbiol	2010, 48, 125-131	ISSN-0973-7715 Impact

Evaluative Report of the Department of Zoology

	Landmark experiments by Craig Venter	Garg, N., Saxena, A., Sangwan, N., Lal, D., Verma, M., Jindal, S., Kaur, J., Kumari, K., Nigam, A., Niharika, N., Kaur, J., Jit, S., Bala, K., Negi, P. L., Lal, R			factor 0.832
32	Bacterial nanowires: a new mode of communication” (News and Views	Saxena, A., Dua, A., Sangwan, N. and Lal, R	Indian. J Microbiol	2010, 50, S144	ISSN-0973-7717 Impact factor 0.832

**Non-refereed but recognized and reputable journals and periodicals – 2  
Chapters in Book**

S. No.	Title of Paper	Authors	Journal	Volume No. year, Page No.	Publisher /ISSN No. / Int. Database
1	Mesenchymal stem cells and regenerative medicine. Stem cells and reproductive health	Chaudhary JK and Rath PC	Stem cells and reproductive health (ISSRF Newsletter)	2013, Issue 13; pp 14-15	NA
2	Research Scenario: crucial issues and challenges from a researcher’s perspective	Chaudhary JK	Society of Biological Chemist Newsletter	103, pg 7	SBC newsletter

**List of Books, chapters and reading material**

S. No.	Books, chapters in books, other than refereed journal articles *	Authors	Editor	Volume No. year, Page No., issue	Publisher /ISSN No. / Int. database
1	Stem cells and geriatrics perspective, Invited book chapter (National Publication) in “Text Book of Geriatrics”	Chaudhary JK and Rath PC	Pratap Sanchetee	Chapter 155, page776-783	Indian Academy of Geriatrics ISBN :978-81-8191



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2	Chapter: Bioremediation of Hexachlorocyclohexane (HCH) Pollution at HCH Dump Sites, Book: Knowledge Systems of Societies for Adaptation and Mitigation of Impacts of Climate Change	Shailly Anand, J Malhotra, N Niharika, Devi Lal, S Jindal, J Kaur, Aeshna Nigam, N Garg, P Lata, Jasvinder Kaur, N Sangwan, A Kumar Singh, Ankita Dua, Anjali Saxena, V Dwivedi, Udita Mukherjee, Rup Lal	Sunil Nautiyal, K S Raa, Harold Kaechele, K V Raju, Ruediger Schaldach	2013	Springer Berlin Heidelberg ISBN 978-3- 642-36142-5
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**Patents**

Faculty	Patent Details
Rakesh Bhatnagar and <b>Parul Kulshreshtha.</b>	“A novel bispecific monoclonal antibody capable of cross reacting with the lethal factor (LF) and edema factor (EF) and neutralizing edema toxin(ET) as well as lethal toxin(LT) of <i>Bacillus anthracis</i> ”. <b>Indian Patent Application no. 714/DEL/2010</b> <b>International [PCT] Patent Application No. PCT/IN2011/000191</b>

20. Areas of consultancy and income generated: **N.A**

21. Faculty as members in

- a) National committees
- b) International Committees

Name of faculty	Members of national/international bodies
Dr. Aeshna Nigam	-American society of Microbiology -Association of Microbiologists of India
Dr Jitendra Chaudhary	-International Society for Stem Cell Research -Molecular --Pathology Association of India (MPAI) -Society of Biological Chemists – (National) -The Cytometry Society-India
Dr. Parul Kulshreshtha	International AAA/S Science body
Dr. Ankita Dua	-American Society for Microbiology (ASM) -Association of Microbiologists of India (AMI) -Indian Network for Soil Contamination Research (INSCR)

- c) Editorial Boards.... - **Nil**
22. Student projects
- a) Percentage of students who have done in-house projects including inter departmental/programme- **3.15%**
  - b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/ other agencies- **Nil**
23. Awards / Recognitions received by faculty and students
- Dr. Aeshna Nigam  
Awarded the Young Scientist Award by Association of Microbiologists of India 13 November, 2014.
  - Dr. Ankita Dua  
Awarded “Best Poster Award” at the 53rd Annual Conference of Association of Microbiologists of India (AMI) entitled “Microbial World: Recent Innovations and Future Trends” held at KIIT University, Bhubaneswar, India from 22nd – 25th November, 2012 for presenting the poster entitled “Genome Sequence of *Acinetobacter* sp. Strain HA, Isolated from Gut of Polyphagous Insect Pest *Helicoverpa armigera*”
  - Dr. Jitendra Kumar  
Young Investigator Award for best scientific research presentation entitled “Bone marrow mesenchymal stem cells: culture, differentiation and gene expression” in the “National Workshop on Stem Cell Research and Therapeutics: Current Status and Future Strategies” held from 28<sup>th</sup> -29<sup>th</sup>September, 2012 at Indian Veterinary Research Institute (IVRI), Izatnagar, under the aegis of Indian Society for the Study of Reproduction and Fertility (ISSRF).

- Dr. Parul Kulshreshtha

**Best Poster Award** at Bacillus ACT '2011, International conference on *B.anthraxis*, *B. cereus* and *B. thuringiensis* held at Belgium, Title of poster, "A monoclonal antibody cross-reactive with edema toxin and lethal toxin of *B. anthracis* protects mice from anthrax toxins."

24. List of eminent academicians and scientists / visitors to the department

Anil Kumar Tyagi Vice Chancellor, GGS IP University of Delhi. B K. Thelma, Department of Zoology, University of Delhi.

Dr. Saurabh Raghuvanshi, Department of Plant Molecular Biology, University of Delhi.

Dr. Rajesh Kumar Gokhale, Director, CSIR-IGIB

Dr. Sher Ali, National Institute of Immunology

Prof. A. K. Singh, University of Delhi

Prof. Rup Lal, University of Delhi.

25. Seminars/ Conferences/Workshops organized & the source of funding

Name/Title	Theme	Funding agency	The number of Invited speakers	Names and affiliations
Bio-convergence	Life science	Shivaji college	04	<b>Dr. Anil Kumar Tyagi</b> Vice Chancellor, GGS IP University of Delhi. <b>B. K. Thelma</b> , Department of Zoology, University of Delhi. <b>Dr. Saurabh Raghuvanshi</b> , Department of Plant Molecular Biology, University of Delhi. <b>Dr. Rajesh Kumar Gokhale</b> , Director, CSIR-IGIB
2. Oyster	Genomics	Shivaji college	01	Dr. Sher Ali, National Institute of Immunology

26. Student profile programme/course wise:

Name of the Course/programme (refer question no. 4)	Selected/ Appeared	Enrolled		Pass percentage
		*M	*F	
2010-11	15	08	07	60%
2011-12	20	10	10	65%
2012-13	43	16	27	76.74%
2013-14	20	05	15	65%

\*M = Male \*F = Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
2010-11	77.96%	22.03%	-
2011-12	84.61%	15.38%	-
2012-13	82.14%	17.85%	-
2013-14	40%	58.18%	18.18%

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.? **No Documentation.**

29. Student progression :- **No Documentation.**

Student progression	Against % enrolled
UG to PG	-
PG to M.Phil.	-
PG to Ph.D.	-
Ph.D. to Post-Doctoral	-
<b>Employed</b>	
Campus selection	-
Other than campus recruitment	
Entrepreneurship/Self-employment	-

30. Details of Infrastructural facilities

a) **Library-** The department does not have its own library but the college library is well equipped with latest technology to make the education comfortable for all the students, viz. open access to library books, issue & return of books using barcoded identity cards, well managed reading hall etc.

b) **Internet facilities for Staff & Students-** The University of Delhi

has provided computers with internet facility in the department to use for teaching as well as research purposes. The college has central computer facility for the students and teachers all the time for easy access of internet and for all the computational work

**c) Class rooms with ICT-** The class rooms have been equipped with the facility of LCD projections. The computers have internet connectivity.

**d) Laboratories-** The department has 2 well maintained laboratories with equipment like spectrophotometers, Gel electrophoresis apparatuses for DNA and proteins, high speed refrigerated centrifuges, clinical microfuge, Microbiological laminar air flow, BOD incubator, water distillation plant, orbital shaker, Stereo Microscopes with 100 X magnification, microtome with multimedia projectors. The department has a well-developed classical museum with plethora of specimens for students to understand and explore zoological diversity.

31. Number of students receiving financial assistance from college, university, government or other agencies:- **8 students are provided financial assistance.**

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts: **Number of eminent personalities and scientists have interacted with students through various seminars organized by the department (refer to list in Q.24).**

33. Teaching methods adopted to improve student learning:

The department combines the traditional 'chalk and talk' approach along with collaborative form of learning. The classrooms and labs have LCD projectors with high-end configured laptops for power point presentations required for teaching. The well connected wi-fi system of the college ensures the access to world-wide information in a matter of minutes. Moreover the department is in possession of research software required to carry-out in silico work in biology as well as a classical museum with plethora of specimens to explore zoological diversity. The student-teacher interaction extends beyond the classrooms for their academic up-liftment. As around 50% of students have an 'average' pre-college academic record teachers use dynamic skills like real world associations, interactive presentations with extra attention to individual students to help students progress to an above average academic level.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities: **NIL**
35. SWOC analysis of the department and Future plans  
As a founding academic department of Shivaji College, the department of Zoology represents a rich legacy of academic excellence.

### **Strengths**

- Faculty members come from different specialization representing a deep knowledge base
- Faculty teaches 14 different subjects thereby building a complimentary wide ranging skill set
- 80% Faculty members have PhDs' emphasizing research orientation
- Faculty members have over 30 publications in referred journals in last 4 years.
- Continual up gradation of teaching skills by attending workshops, refresher courses & orientation programs
- Well-equipped laboratory allow for practical validation & learning of subject theory and testing of hypothesis
- Department provides a platform for Student – Subject Expert interaction through events

### **Weakness**

- Infrastructure constraints a) More & spacious labs with more workbenches b) Lab Equipment like PCR Thermo cycler, ELISA reader, Southern Blot Hybridization equipment etc. C) IT & Communication equipment like Workstations, Printers, LCD Projectors etc. d) Reading Room for students e) Discussion room for student – teacher interaction etc. required for effective teaching to all students
- Personnel constraints: Require more faculty and trained technical staff for better student – teacher ratio

### **Opportunities**

- There is a growing demand for Biologists from industry and academia. Students need to be made aware of the opportunities in various fields to attract them to pursue Zoology
- Upcoming new Campus should help in alleviating infrastructure issues

- Use of technology can help in faster & better learning as well as collaboration with various members of the student bodies, academia and industry across the globe
- Partnering with Industry and alumni to enhance research focus as well align teaching with real world needs and improve student employability

**Challenges and Future plans**

- Improving the quality of incoming students and ensuring academic excellence of students
- Attaining Star College status
- Identifying industry and academic partners for collaboration
- Identifying avenues for research & other funding

## BEST PRACTICE

### PROMOTION OF ENVIRONMENTAL CONSCIOUSNESS

#### Goal

Environmental Consciousness is a philosophy, ideology and social movement. It is an attempt to balance interaction between human beings and various natural systems in a way that all the components should be in a proper degree of sustainability. It aims at making students sensitive and aware regarding nature and its components which sustain us. Students are trained to inculcate practices which will enable them to conserve and protect their natural environment. Conservation of biodiversity, controlling pollution, restoration of wildlife and creating habitable regions for local flora and fauna to flourish are some of the measures through which students are encouraged to contribute to the cause.

#### The Context

Environmental awareness is considered vital to galvanize the masses so that further degradation of the environment is checked and efforts are made to restore its quality so that the economic and human growth can be made sustainable. To deal with this problem, we have to **think globally and act locally**. Shivaji College has adopted promotion of environmental awareness as one of its goals. Educational institutes dealing with young people are among the best agencies for creating environmental consciousness in the society. The process to achieve the above stated target is long and measures adopted require patience before they yield results. The college deals with this issue at three levels. Students of first year study a compulsory paper on “Environmental Science”. Adequate exposure is provided to students through seminars, workshops, competitions and talks organized around the topic. In this manner, students observe the gravity of the cause and further it by promoting the adoption of effective measures in society. Conservation as a strategy is directly related to the mindset of the populace that deals with it. It is difficult to change the mindset and sensitize people towards the issue. This was reflected when the College had initiated a drive to segregate the waste at source by sorting it in three categories namely degradable, biodegradable and toxic. However, the endeavor turned out to be futile as garbage collectors from MCD did not have a provision to maintain this division at their respective level. It is a fact that most countries have adopted the above stated practice to manage the waste and this measure has yielded positive results.

#### The Practice

The air in Delhi contains hazardous levels of Nitrogen dioxide, Sulphur dioxide, Benzene and Carbon monoxide. Delhi, the National Capital, has earned itself the top slot among 16 most polluted cities in the country. Keeping this condition in mind and in order to improve the air quality, the main campus



of the College has been made a **vehicle free zone**. Students are apprised about reducing carbon footprints and emissions through organization of seminars, symposiums, nature walks and excursions. Moreover, the staff and students have been practicing car pools and using public transport to commute. Students are encouraged to apply measures like using **LED**, unplugging the gadgets, using laptops over desktops, planting trees, and using energy efficient appliances. The College has collaborated with **Chintan- an Environment Research and Action Group** to collect e-waste. For this purpose, many drop-boxes have been installed at strategic locations in the campus. The College campus has sprawling grass lawns with a vast variety of herbs, shrubs and trees. The Eco-club takes an active interest in the maintenance of the college gardens. **Herbal/medicinal** plants are reared exclusively in a separate enclosure. It aims to provide precise knowledge of the economic and medicinal use of cultivated and wild plants. The College has a provision for **water harvesting**. The policy of **reduce, reuse and recycle** is followed to ensure judicious use of resources. Blank side of already printed paper is furthered use to save additional consumption. Salary slips and security refund forms are issued electronically to reduce paper consumption.

To ensure effective implementation of the above stated measures, the Colleges has constituted two committees:

1. Eco-Club
2. Clean Campus Committee

The Eco-Club was formed in 2006 and it works in coordination with the Department of Environment, Govt. of NCT, Delhi. Its motto is “**One World One Environment**”. It organizes *Van Mahotsava* on Teachers’ Day every year where everybody pledges to protect and plant a tree. The club encourages the use of paper and cloth bags and used paper is recycled in college. Moreover, dirty water from the low lying areas is used for irrigation of plants.

The Clean Campus Committee was constituted in March, 2014 works towards maintaining cleanliness in and around the campus. Its motto is:

1. Don’t litter and don’t let anybody else
2. Minimize the use of plastic bags
3. No sticking of posters on wall

**Evidence of success**

Student members of eco-club have learnt the technique of paper recycling and they make beautiful, colorful handmade paper which is used in the college for various purposes. Garden residue is converted into manure through vermicomposting. Provision to harvest rainwater for irrigation is available in the college premises.

The Clean Campus Committee organized a cleanliness drive on 2<sup>nd</sup> October, 2014 involving faculty, students and non-teaching staff. The entire campus and adjoining areas were cleaned during this drive. The teachers and students were assigned different areas and everyone worked enthusiastically to make the campus sparkling clean.

**Problems encountered and resources required**

Water shortage is a major challenge for maintaining vegetation, this is being partly addressed by recycling water/or by using waste water for irrigation.

The college campus has registered visible success in terms of hygiene but there is a scope for further improvement. Students are slow in adopting cleanliness habits and regular efforts are required in this direction. Consistent and patient approach would definitely bring about a shift in the attitude of society through students and staff alike.

## CONTACT DETAILS

Name of the Principal: Dr. Shashi Nijhawan  
Name of the Institution: Shivaji College, University of Delhi  
City: New Delhi  
Pin Code: 110027  
Accredited Status: Applied for Cycle - I  
Work Phone: 011-25192505, 011-25116644,  
011-25191458  
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**शिवाजी कॉलेज**  
(दिल्ली विश्वविद्यालय)  
*Shivaji College*  
(University of Delhi)

संदर्भ सं०/Ref. No. ....

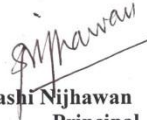
दिनांक /Dated .....11.03.2015.....

**Declaration by the Head of the Institution**

I certify that the data included in this Self-study Report (SSR) are true to the best of my knowledge.

This SSR is prepared by the institution after internal discussions, and no part thereof has been outsourced.

I am aware that the Peer team will validate the information provided in this SSR during the peer team visit.

  
**Dr. Shashi Nijhawan**  
Principal



**शिवाजी कॉलेज**  
(दिल्ली विश्वविद्यालय)  
**Shivaji College**  
(University of Delhi)

संदर्भ सं० / Ref. No. ....

दिनांक / Dated **11.03.2015**

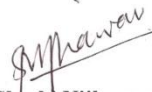
**Certificate of Compliance**

This is to certify that Shivaji College, Ring Road, Raja Garden, New Delhi fulfills all norms.

1. Stipulated by the University of Delhi and
2. Regulatory Council/Body such as UGC, NCTE, AICTE, MCI, DCI, BCI, etc. and
3. The affiliation and recognition is valid as on date.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the Institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the College Website.

  
**Dr. Shashi Nijhawan**  
Principal





**Shivaji College**  
University of Delhi  
Raja Garden, New Delhi-110027