



**SHIVAJI COLLEGE**  
**NAAC Accredited 'A' Grade**  
**(University Of Delhi)**



**(Under DBT Star College Scheme)**

Organizes

**LABORATORY SKILL TRAINING  
PROGRAMME**  
for  
**Assistants/Attendants in the Chemical  
and Life Science Laboratories**  
**May 20 – 24, 2019**

**PROGRAMME SCHEDULE**

## ORGANIZING COMMITTEE

| Principal  |   | Coordinator   |  |  |
|--|---|---|--|--|
| <b>Dr. Shashi Nijhawan</b>   |   | <b>Dr. Darshan Malik</b>  |  |  |
| Conveners  |   |   |  |  |
| Biochemistry   | Botany  | Chemistry   | Zoology  |  |
| Dr. Renu Baweja  | Dr. Anuradha Mal  | Dr. P. K. Sahu  | Dr. Deepika Yadav  |  |
| Co –conveners  |   |   |  |  |
| Biochemistry   | Botany  | Chemistry   | Zoology  |  |
| Dr. Jayita Thakur  | Dr. Pratima Rani<br>Sardar  | Dr. Nand Gopal<br>Giri  | Ms. Nimita Kant  |  |
| Resource Persons   |   |   |  |  |
| Biochemistry   | Botany  | Chemistry   |  | Zoology  |
| Dr. Shashi Nijhawan<br>Dr. Rashmi Wardhan<br>Dr. Darshan Malik<br>Dr. Jayita Thakur<br>Dr. Renu Baweja<br>Dr. Sunita Singh<br>Ms. Usha Yadav | Dr. Anita Kapur<br>Dr. Anuradha Mal<br>Dr. Pratima Rani Sardar<br>Dr. Vijay Kumar<br>Dr. Prabhavathi<br>Dr. Smita Tripathi<br>Dr. Kiran Bamel<br>Dr. Misha Yadav<br>Dr. Seema Talwar<br>Dr. Divya Mohanty<br>Dr. Nupur Mondal<br>Dr. Anurag Maurya<br>Dr. Devender S. Meena | Dr. Manjula Singh<br>Dr. Anil K. Agarwal<br>Dr. P.K. Sahu<br>Dr. Rajni Kanojia<br>Dr. Bhaskar Kandpal<br>Dr. Neena Khanna<br>Dr. Nand Gopal Giri<br>Dr. Rahul Singhal<br>Dr. Vandana Katoch | Dr. Richa Arora<br>Mr. Deepesh Singh<br>Dr. Pooja Saluja<br>Dr. Shilpa Jain<br>Mr. Narender Kumar<br>Dr. Sunil Yadav<br>Ms. Priyanka Kumari<br>Dr. Pallavi Agarwal<br>Dr. Uma Narang | Dr. Deepika Yadav<br>Ms. Nimita Kant<br>Dr. Aeshna Nigam<br>Dr. Jitendra K. Chaudhary<br>Dr. Ankita Dua<br>Dr. Rashmi Singh<br>Dr. Tarun Kumar Vats<br>Dr. Neetu Singh |

| <b>Day 1</b>                           |                                   | <b>May 20, 2019</b>  |  | <b>COLLEGE AUDITORIUM</b>       |  |
|--|-----------------------------------|----------------------|--|---------------------------------|--|
| <b>Inaugural Session</b>               | <b>Time</b><br>9:30 AM - 11:00 AM | <b>Topic</b>         |  | <b>Resource Person</b>          |  |
|  |                                   | Ethics and Biosafety |  | Dr. Shashi Nijhawan (Principal) |  |
|  |                                   | Waste Disposal       |  | Dr. Darshan Malik               |  |
| <b>Tea Break (11:00 AM – 11:30 AM)</b> |                                   |                      |  |                                 |  |

| <b>Day 1 (Contd.), May 20, 2019, DEPARTMENT OF BIOCHEMISTRY</b> |   |  |   |
|---|---|--|---|
| <b>Sessions and Resource Persons</b>                            |   |  |   |
| <b>Time</b>   | <b>Session I</b>  | <b>Session II</b>                        | <b>Session III</b>                      |
|   | Sterilization Techniques: Autoclave, Operating the Laminar Hood. Hands on practice for operating Oven, Incubator & Microwave for laboratory work. | Dialysis and Ion Exchange Chromatography | Preparation of Gels for Electrophoresis |
|   | Dr. Rashmi Wardhan<br>Dr. Renu Baweja   | Dr. Darshan Malik<br>Dr. Jayita Thakur   | Dr. Sunita Singh<br>Ms. Usha Yadav      |
| <b>11:30 AM</b>   | <b>BATCH 1</b>  | <b>BATCH 2</b>                           | <b>BATCH 3</b>                          |
| <b>01:00 PM</b>   | <b>LUNCH BREAK</b>  |  |   |
| <b>02:00 PM</b>   | <b>BATCH-2</b>  | <b>BATCH-3</b>                           | <b>BATCH-1</b>                          |
| <b>3:30 PM</b>  | <b>BATCH -3</b>   | <b>BATCH -1</b>                          | <b>BATCH-2</b>                          |

| <b>Day 2      21<sup>st</sup> May, 2019      DEPARTMENT OF BOTANY</b> |  |   |   |   |
|---|--|---|---|---|
| <b>Sessions and Resource Persons</b>                                  |  |   |   |   |
| <b>Time</b>   | <b>Session I</b>   | <b>Session II</b>   | <b>Session III</b>  | <b>Session IV</b>   |
|   | <b>Microscopy:</b><br>Introduction to Microscopy, use and Maintenance. preparation of Slides | <b>Pipette and Micropipette:</b><br>Use and maintenance of Pipettes and Micropipettes | <b>Staining:</b><br>Stains: Uses and preparations                                   | <b>Hands on Practice for Operating Centrifuge:</b><br>Introduction to Centrifuge: Its use and maintenance |
|   | Dr. Anuradha Mal<br>Dr. Prabhavathi<br>Dr. Seema Talwar<br>Dr. Divya Mohanty                 | Dr. Anita Kapur<br>Dr. Kiran Bamel<br>Dr. Devender S. Meena                           | Dr. Pratima Rani Sardar<br>Dr. Vijay Kumar<br>Dr. Anurag Maurya<br>Dr. Nupur Mondal | Dr. Smita Tripathi<br>Dr. Misha Yadav<br>Dr. Devender S. Meena  |
| <b>9.30 AM</b>  | <b>BATCH-1</b>   | <b>BATCH-2</b>  | <b>BATCH-3</b>  | <b>BATCH-4</b>  |
| <b>11.00 AM</b>   | <b>TEA BREAK</b>   |   |   |   |
| <b>11.15 AM</b>   | <b>BATCH-2</b>   | <b>BATCH-3</b>  | <b>BATCH-4</b>  | <b>BATCH-1</b>  |
| <b>01.00 PM</b>   | <b>LUNCH BREAK</b>   |   |   |   |
| <b>02.00 PM</b>   | <b>BATCH-3</b>   | <b>BATCH-4</b>  | <b>BATCH-1</b>  | <b>BATCH-2</b>  |
| <b>3.30 PM</b>  | <b>BATCH-4</b>   | <b>BATCH-1</b>  | <b>BATCH-2</b>  | <b>BATCH-3</b>  |

**Day 3      22<sup>nd</sup> May, 2019      DEPARTMENT OF ZOOLOGY**

**Sessions and Resource Persons**

| <b>Time</b>     | <b>Session I</b>   | <b>Session II</b>   | <b>Session III</b>   | <b>Session IV</b>                                     |
|-----------------|--|---|--|---|
|                 | <b>Buffer Preparation:</b><br>Preparation of Buffer,<br>Concepts of Molarity & Normality | <b>Instrumentation:</b><br>Colorimeter & Spectrophotometer<br>Handling and Care | <b>Microbiology:</b><br>Preparation of media & aseptic conditions in a Microbiology laboratory | <b>Museum Keeping:</b><br>Animal specimen maintenance |
|                 | Dr. Jitendra K Singh<br>Dr. Neetu Singh  | Dr. Deepika Yadav<br>Dr. Tarun Kumar Vats                                       | Dr. Aeshna Nigam<br>Dr. Ankita Dua   | Ms. Nimita Kant<br>Dr. Rashmi Singh                   |
| <b>09:30 AM</b> | <b>BATCH-1</b>   | <b>BATCH-2</b>  | <b>BATCH-3</b>   | <b>BATCH-4</b>  |
| <b>11:00 AM</b> | <b>TEA BREAK</b>   |   |  |   |
| <b>11:15 AM</b> | <b>BATCH-2</b>   | <b>BATCH-3</b>  | <b>BATCH-4</b>   | <b>BATCH-1</b>  |
| <b>01:00 PM</b> | <b>LUNCH BREAK</b>   |   |  |   |
| <b>02:00 PM</b> | <b>BATCH-3</b>   | <b>BATCH-4</b>  | <b>BATCH-1</b>   | <b>BATCH-2</b>  |
| <b>03:30 PM</b> | <b>BATCH-4</b>   | <b>BATCH-1</b>  | <b>BATCH-2</b>   | <b>BATCH-3</b>  |

**Day 4    23<sup>rd</sup> May, 2019    DEPARTMENT OF CHEMISTRY**

**Sessions and Resource persons**

| <b>Time</b>       | <b>Session I</b>  | <b>Session II</b>  | <b>Session III</b>   | <b>Session IV</b>                                       | <b>Session V</b>  |
|-------------------|---|--|--|---|---|
|                   | <b>Calibration of Instruments and Glasswares:</b><br>Pipette, Burette, Thermometer etc. | <b>Organic Practical Apparatus Arrangement:</b><br>Distillation Apparatus & TLC  | <b>Preparation of Solutions:</b><br>Normal, Molar Solutions etc.         | <b>Volumetric Analysis:</b><br>Titrations, Indicators   | <b>Instrumentation:</b><br>pH meter, Potentiometer, Colorimeter, Conductometer etc. |
|                   | Dr. Anil Kr. Aggarwal, Mr. Deepesh Singh, Dr. Uma Narang                                | Dr. Bhaskar Mohan Kandpal, Dr. N. G. Giri, Dr. Pooja Saluja, Dr. Pallavi Agarwal | Dr. Manjula Singh, Dr. Neena Khanna, Mr. Narinder Kumar, Dr. Sunil Yadav | Dr. Rahul Singhal, Dr. Shilpa Jain, Ms. Priyanka Kumari | Dr. P. K. Sahu, Dr. Rajni Kanojia, Dr. Vandana Katoch, Dr. Richa Arora              |
| <b>9.30 AM</b>    | <b>BATCH-1</b>  | <b>BATCH-2</b>   | <b>BATCH-3</b>   | <b>BATCH-4</b>  | <b>BATCH-5</b>  |
| <b>10.30 AM</b>   | <b>TEA BREAK</b>  |  |  |   |   |
| <b>11.00 AM</b>   | <b>BATCH-2</b>  | <b>BATCH-3</b>   | <b>BATCH-4</b>   | <b>BATCH-5</b>  | <b>BATCH-1</b>  |
| <b>12.00 noon</b> | <b>BATCH-3</b>  | <b>BATCH-4</b>   | <b>BATCH-5</b>   | <b>BATCH-1</b>  | <b>BATCH-2</b>  |
| <b>1.00 PM</b>    | <b>LUNCH BREAK</b>  |  |  |   |   |
| <b>2.00 PM</b>    | <b>BATCH-4</b>  | <b>BATCH-5</b>   | <b>BATCH-1</b>   | <b>BATCH-2</b>  | <b>BATCH-3</b>  |
| <b>3.30 PM</b>    | <b>BATCH-5</b>  | <b>BATCH-1</b>   | <b>BATCH-2</b>   | <b>BATCH-3</b>  | <b>BATCH-4</b>  |

**Day 5      May 24, 2019      COMPUTER SCIENCE LAB**

| <b>Time</b>                                    | <b>Session</b>              | <b>Topic</b>   | <b>Resource Persons</b> | <b>Venue</b>         | <b>Batch</b>     |
|--|-----------------------------|--|-------------------------|----------------------|------------------|
| <b>9.30 – 10.15 am</b>                         | Session I                   | Basic Desktop Operations   | Mr. Ratan Deep          | Computer Science Lab | All participants |
|  | Tea Break                   |  |                         |                      |                  |
| <b>10.15 – 11.00 am</b>                        | Session II                  | Internet Browsing, Mailing and Microsoft Tools Used in Daily Office Work | Mr. Afroz Khan          | Computer Science Lab | All participants |
| <b>11.00am – 12.00 noon</b>                    | Session III                 | Hands on Training  |                         | Computer Science Lab | All participants |
| <b>12.00 – 12.45 pm</b>                        | Session IV                  | Rules for Purchase through GeM   | Mr. Praveen Kumar       | Computer Science Lab | All participants |
| <b>Day 5      May 24, 2019      AUDITORIUM</b> |                             |  |                         |                      |                  |
| <b>12.45 – 1.30 pm</b>                         | <b>VALEDICTORY FUNCTION</b> |  |                         | Auditorium           | All participants |

