

SHIVAJI COLLEGE, UNIVERSITY OF DELHI
DEPARTMENT OF COMPUTER SCIENCE
INTERNAL TEST (Academic Year 2023-24)

Name of the Course	: GE-1	Semester	: I
Name of the Paper	: Programming With Python	Faculty Name	: Abha Vasal
Duration	: 1 Hour	Maximum Marks:	20
Date of Test	: 29.11.2023		

SET A

Module 1- 1 Mark each

1. &&, ||, ^ are _____ operator logical
2. max("hello", "how", "are", "you")
3. Message="How, Welcome to Programming"
(I) Find output of Message[7:13]
(II) Give the valid range of indices of Message
4. l=['if', 'pass', 'for', 'break', 'else']

Find output of l.sort()

Module 2 -2 Mark each

1. Difference between List and set
2. Illustrate the use of range() in Python along with example
3. What are List Comprehension
4. Create a dictionary to store month names

Values as 1: 'January'

5. Write output of executing the following statements:

```
list1=[1,2,3]
```

```
list2=list1*3
```

```
print list2
```

```
print list1+list2
```

Module 3- 5 Mark each

1. What is an assert statement? Why is it used? Write a program that accepts input as length and breadth from user and compute the area of triangle, also assert that the sum of the length of any two sides is greater than sum of other two sides



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SET B

section-1 1 Mark each Question

1. Mention some logical operators available in python
2. Explain ** operator
3. What is the use of del statement
4. How are comments defined in python?
5. Difference between break and continue statements

section 2 2 Mark each

1. What is the difference between for and while loop?
2. Write a function cube that takes a number as argument and returns cube of the number?
3. Explain sort function with parameter key and reverse with example
4. Evaluate $-15 \mid 22$
5. For colors='Red, Green, Blue, Orange, Yellow, Cyan'

Find output

colors.split()

colors.partition(",")

section 3 -5 marks total

1. Explain set operations union and difference with examples
2. Write a program that print all Armstrong number in the range 1 to 1000


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SET C

Section -1 Mark each

1. Define a tuple?
2. Output of `math.ceil(7.4)`
3. Output of `"62"+"4"`
4. `Message="How, Welcome to Programming"`

Output of `Message.lower()`

5. `l=['if', 'pass', 'for', 'break', 'else']`

`l.insert(2, 'continue')`

section- Mark each

1. Write an assignment statement using a single conditional expression for the following
if `marks >= 70`:

`remarks='good'`

else:

`remarks='Average'`

2. What is the difference between shallow copy and deep copy in list?
3. How pass statement is different from continue in Python?
4. What are lists? Give example. How is append and extend functions different
5. Consider following nested list:

`city=[['Tokyo', 23], ['Paris', 34], ['Amsterdam', 45]]`

Output of following statement:

Print `city[1]`

Print `city[1][0]`

Question Write a function that sum of digits of a number, passed it as an argument – 5 Marks

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SET D

1. `l=['if', 'pass', 'for', 'break', 'else']` -What is Output of `lst.remove('break')`
 2. Is Python case sensitive True or False?
 3. Write Python equivalent statement for expression $\text{result}=2xy-9y/2xy^3$
 4. Find output 10^6
 5. Determine output (5)
- `result=[x+y for i in range (1,5) for y in range (1,5)]`
- Q2 1.** Rewrite the program using for loop (10)

`total=0`

`count=1`

`while count<5:`

`total+=count`

`count+=1`

`print (total)`

2. Evaluate `((not (9==8)) and ((7+1)!=8)) or (6<4.5)`

3. What are mutable and immutable type?

4. Determine the output

`digit1=set([0,1,2,3])`

`digit2=set([2,4,5,6])`

`digit3=set([0,7,8,9,2])`

`setdifference(digit1, digit2, digit3)`

`digit1| digit2`

5. How does function return a value? Give example

1. Write a function to determine whether a given number is a perfect number. A perfect number is said to be a perfect number if it is sum of its divisors. For example, 6 is a perfect number because $6=1+2+3$ but 15 is not a perfect number because $15!=1+3+5$ (5)

Faculty Signature: 