

22616

21222

3 Hours / 70 Marks

Seat No.

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15 minutes extra for each hour

- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following:** **10**
- a) Name different modes of python.
 - b) List identity operators in python.
 - c) Give two differences between list and tuple.
 - d) Explain Local and Global variable.
 - e) Define class and object in python.
 - f) How to give single and multiline comment in python.
 - g) List different modes of opening file in python.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Write a program to print following:
1
1 2
1 2 3
1 2 3 4
 - b) Explain four Built-in tuple functions python with example.
 - c) Explain how to use user defined function in python with example.
 - d) Write a program to create class EMPLOYEE with ID and NAME and display its contents.
- 3. Attempt any THREE of the following:** **12**
- a) List Data types used in python. Explain any two with example.
 - b) Explain membership and assignment operators with example.
 - c) Explain indexing and slicing in list with example.
 - d) Write a program for importing module for addition and subtraction of two numbers.
- 4. Attempt any THREE of the following:** **12**
- a) Write a program to create dictionary of students that includes their ROLL NO. and NAME.
 - i) Add three students in above dictionary
 - ii) Update name = 'Shreyas' of ROLL NO = 2
 - iii) Delete information of ROLL NO = 1
 - b) Explain decision making statements If-else, if-elif-else with example.
 - c) Explain use of format () method with example.
 - d) Explain building blocks of python.
 - e) Write a program illustrating use of user defined package in python.

5. Attempt any TWO of the following:**12**

a) Write the output of the following:

```
i) >>> a = [2, 5, 1, 3, 6, 9, 7]
    >>> a [2 : 6] = [2, 4, 9, 0]
    >>> print (a)
```

```
ii) >>> b = ["Hello" , "Good"]
    >>> b. append ("python")
    >>> print (b)
```

```
iii) >>> t1 = [3, 5, 6, 7]
    >>> print (t1 [2])
    >>> print (t1 [-1])
    >>> print (t1 [2:])
    >>> print (t1 [:])
```

b) Explain method overloading in python with example.

c) Write a program to open a file in write mode and append some contents at the end of file.

6. Attempt any TWO of the following:**12**

a) Explain package Numpy with example.

b) Write a program to implement the concept of inheritance in python.

c) Explain Try-except block used in exception handling in python with example.
