22616

21222

3 Hours / 70 Marks   Seat No. | 2 | 2 | 3 | 8 | 6 | 5 | | |

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:**

a) Write a program to print following:

```
1
1   2
1   2   3
1   2   3   4
```

b) Explain four Buit-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 substraction 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.

Marks

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.

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