

22478

23124

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.

Marks

1. Attempt any FIVE of the following :

10

- (a) State the need of inheritance in python.
- (b) State different membership operators in python.
- (c) Enlist any four data types in python.
- (d) Write the use of slicing operation on list.
- (e) Define local variable and global variable.
- (f) State the use of upper() in python.
- (g) Enlist any four built-in exceptions in python.

2. Attempt any THREE of the following :

12

- (a) Explain any four methods of dictionary.
- (b) Explain any four relational operators in python.



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- (c) Write the output of the following program :

```
flowers = ["champa", "dessa", "jasmine",  
          "lotus", "marigold", "rose",  
          "sunflower", "tulip"]  
  
print (flowers [1 : 5])
```

- (d) Explain any four built-in functions in python.

3. Attempt any THREE of the following :

12

- (a) Explain multilevel inheritance with suitable example.
- (b) Write a program to create a dictionary having three keys (fruits, flowers, birds). Each key should contain a list of any three values. Print keys and values of dictionary on screen.
- (c) Write any four applications of python.
- (d) Write a program to generate and print following number pattern :

```
1  
  
1 2  
  
1 2 3  
  
1 2 3 4  
  
1 2 3 4 5
```

4. Attempt any THREE of the following :

12

- (a) Compare list and tuple data structure (any four points).
- (b) Write a program to display contents of the file "myfile.txt" on the screen.

- (c) Write the output of the following program for x in range (1, 10) :

```
if x == 5 :  
    continue  
  
else :  
  
    print (x)
```

- (d) Write a program to illustrate the use of union (), intersection (), difference () operation on set data structure.
- (e) Explain user defined function with its syntax.

5. Attempt any TWO of the following :

12

- (a) Define exception. Explain the procedure for handling exception in python.
- (b) Write a program to create user defined exception 'InvalidUserException'. Write a program to accept name of the user and raise the 'InvalidUserException' if username is not 'admin'. Display welcome message otherwise.
- (c) Explain multiple inheritance with suitable example.

6. Attempt any TWO of the following :

12

- (a) Explain module in python. Write a procedure to create and use a module in python with suitable example.
- (b) Write any three functions available in 'Math' module and any three functions available in 'os' module.

P.T.O.

(c) Create the classes as shown in the following diagram :

