

Q.P. Code : 756001

(2½ Hours)

[Total Marks : 75

- N.B. :**
- (1) All the questions are **compulsory**.
 - (2) **Figures** to the **right** indicate full **marks**.
 - (3) Illustrations, in-depth answers and diagrams will be appreciated.
 - (4) Mixing of sub-questions is not allowed.
 - (5) Assume suitable data wherever required.

1. Attempt All (Each of 5 Marks)

15

(a) Multiple choice questions :

- (1) and, or, not are _____ operators.
 - (i) Arithmetic
 - (ii) Logical
 - (iii) Relational
 - (iv) Assignment
- (2) What is the output of len([1, 2, 3]) ?
 - (i) 1
 - (ii) 2
 - (iii) 3
 - (iv) 4
- (3) A variable defined inside the function is called _____ variable.
 - (i) Local
 - (ii) Global
 - (iii) Block
 - (iv) Identifier
- (4) Which of the following function converts a string to all uppercase ?
 - (i) upper ()
 - (ii) isdecimal ()
 - (iii) Swapcase ()
 - (iv) title ()
- (5) What is the output of the following ?
k = [print (i) for i in my_string if i in "aeiou"]
 - (i) prints all the vowels in my_string
 - (ii) prints all the consonants in my_string
 - (iii) prints all characters of my_string that aren't vowels
 - (iv) None of these

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(b) Fill in the blanks.

- (1) &&, ||, ^ are _____ operators
- (2) arithmetic operator (%) is used for _____
- (3) _____ Statement terminates the loop statement and transfers execution to the statement immediately following the loop.
- (4) To use sqrt () function we need to import _____ module.
- (5) An instance of a class is called as _____.

(c) Short answers:

- (1) What is the use of del statement ?
- (2) Define Assignment statement.
- (3) Write syntax to create a List.
- (4) List any four methods of List.
- (5) Explain the use of "Pass" statement.

2. Answer any three from the following : (Each of 5Marks)

15

- (a) Write a short note on IDLE.
- (b) Discuss Operator Precedence along with an example.
- (c) What is variable? What are the rules and conventions for declaring a variable?
- (d) What is the difference between simple and expression statements ?
- (e) Explain "string" data types in regards with following:
 - (i) Declaration and initialization of variable of "string" data type
 - (ii) Displaying second character of a string.
 - (iii) Display all characters of a string.
 - (iv) Display all characters starting from second position in a string.
 - (v) Repeat string twice and display it.
- (f) Write a program to calculate area of rectangle and circle. Take input from the user.

3. Answer any three from the following : (Each of 5Marks)

15

- (a) How do we implement if-elif condition ? explain with example.
- (b) Explain continue statement.
- (c) Discuss the difference between local and global variable.
- (d) What is actual and formal parameter in user defined functions?
- (e) Explain Tuples. How do we create Tuples? Explain with example.
- (f) Write a program to print the numbers divisible by 3 till n. Take n as input from user. (Create user defined function).

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4. Answer any three from the following : (Each of 5Marks)

15

- (a) What is the difference between user defined function and anonymous function ?
- (b) Write a short note on List Comprehension.
- (c) Explain the following terms of Object Oriented Programming :
 - (i) Class
 - (ii) Methods
- (d) Discuss the concept "Dictionary".
- (e) Define Built-in functions. Explain any 4 built-in functions along with an example.
- (f) Write a program to create an anonymous function to calculate Cube of a number.

5. Answer any three from the following : (Each of 5Marks)

15

- (a) Define user defined function. Write the syntax to define user defined function. Give example for the same.
- (b) Illustrate the use of range () in python along with an example.
- (c) Write a short note on assert statement.
- (d) What is the difference between interactive and script modes of IDLE?
- (e) Explain for loop with example.