BCA / B.Sc. (IT)   (Sem.–3)

PROGRAMMING IN PYTHON

Subject Code : UGCA-1914
M.Code : 93332
Date of Examination : 18-01-23

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. **Write briefly :**

   a. Define a class. How is class members accessed in Python?

   b. Explain the utility of assert statement.

   c. Define recursion with the help of example.

   d. Explain the utility of keyword arguments in functions.

   e. Write a program to find whether a given year is a leap year or not using if-else statement.

   f. How is bitwise operator used in Python?

   g. '*Python has developed as an open source project*'. Justify this statement.

   h. What are literals? Give examples.

   i. Describe the features of Python.

   j. What is type conversion? Explain its need.

SECTION-B

2. Explain the steps of installing Python. Discuss the features and limitations of Python programming language.

3. What are variables? What are the various data types Python variables can have? Write a program to swap two numbers using temporary variable.

4. Write a short note on conditional branching statements supported by Python. When should we use nested if statements? Illustrate your answer with the help of example.

5. What do you understand by the term arguments? How do we pass them to a function? "*Arguments may be passed in the form of expressions to the called function*". Justify this statement with the help of example.

6. Write a detailed note on opening and closing files in Python. Write about various access modes. Also, discuss the attributes of the File Object.

7. Discuss the object oriented nature of Python. Explain how classes are designed and how objects are created?

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.