Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 07

BCA/B.Sc. (IT)   (Sem.–3)
PROGRAMMING IN PYTHON
Subject Code : UGCA1914
M.Code : 78180
Date of Examination : 19-12-2023

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) What is the significance of environment variables while installing Python?

   b) Explain the concept of multiple assignments.

   c) Explain briefly about scope and lifetime of a variable.

   d) Write various use cases of Python data types.

   e) Differentiate between a tuple and a list.

   f) Explain anonymous function with the help of an example.

   g) What is the difference between a module and a package?

   h) Discuss the concept of 'raising' exceptions in Python and provide an example of how it can be used.

   i) What is the purpose of the tell() and seek() methods in file handling?

   j) Explain the concept of garbage collection in Python and its role in managing memory.

SECTION-B

2. What are the various features of Python? Discuss various advantages and limitations associated with it along with the applications.

3. Discuss Python's native data types. Provide insights into their features and detail methods and operations for manipulating these types.

4. What is a function? Explain different ways in which arguments can be passed to a function highlighting the advantage and disadvantage of each.

5. Explain the concept of file handling addressing the modes, attributes, encoding, opening and closing of files. Discuss how file pointers can be moved in the files using built-in functions to read/write data from/into files?

6. Explain the benefits associated with the concept of object-oriented programming over procedural language.

7. What are control statements? Explain break, continue and pass statements with the aid of an example.

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.