

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE) (Sem.-5)
PROGRAMMING IN PYTHON
Subject Code : BTCS-510-18
M.Code : 78324
Date of Examination : 01-12-2023

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 **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Answer briefly :

- a) Why is it vital that dictionary keys in Python may be of any form of data when utilizing dictionaries?
- b) Give one example of a mapping type in Python.
- c) Differentiate between an error and an exception.
- d) Discuss the importance of exception handling.
- e) What significance does Global Interpreter Lock (GIL) hold in multithreaded Python programming?
- f) Discuss thread's lifecycle in python.
- g) What is the purpose of the HTTP server in web development using Python?
- h) Write a short note on Tkinter.
- i) What is an ORM, and how does it relate to database programming?
- j) Discuss the process of fetching data from a database using DB-API.

SECTION-B

2. What is Python object? Describe mutable and immutable objects in Python with the help of examples.
3. Compare strings, lists and tuples on the basis of similarities and differences among them.
4. Write a short note on regular expressions. Describe special symbols and characters used in regular expressions and provide examples of their usage in Python code.
5. Describe the concept of advanced web clients. Discuss the importance of handling HTTP response data and parsing it in simple web clients.
6. Discuss the role of operators in Python and provide examples of arithmetic, logical and comparison operators.

SECTION-C

7. What is persistent storage? Discuss the significance of persistent storage modules and their applications in handling data across program executions.
8. Explain the following terms:
 - a) Web surfing
 - b) Web client
 - c) GUI programming
 - d) CGI
 - e) HTTP
9. What are 'related modules' in Python? Discuss some commonly used related modules explaining the key features and use cases of each of the module.

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