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Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. CSE (Internet of Things and Cyber Security including Block Chain Technology) (Sem.-5)

PROGRAMMING IN PYTHON

Subject Code : BTAIML-501-20

M.Code : 92370

Date of Examination : 24-12-22

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. Write briefly :

- a. What are identifiers? List the rules to name an identifier in Python.
- b. Write a python program to calculate simple interest and compound interest.
- c. Write down the steps of installing Python.
- d. Explain the utility of 'Break' statement with the help of an example.
- e. What are user-defined functions? Give an example to illustrate their use in Python program.
- f. Differentiate between pass by value and pass by reference with the help of examples.
- g. What are packages in Python? Discuss their utility.
- h. With the help of suitable examples explain different ways in which you can write data in a file in Python program.
- i. How is a generator function different from normal functions?
- j. What are class members? How are they accessed?

SECTION-B

2. Describe the significant features of Python. Write a short note on data types in Python giving suitable examples of each.
3. Write a short note on conditional branching statements supported by Python. Write a Python program to demonstrate the use of nested if structure.
4. Discuss the significance of modules in Python. Explain the process of module definition and module import with the help of examples.
5. Write a brief note on file management in Python. Write a Python program that reads text from a file and writes it into another file but in the reverse order.
6. What are the applications of the Collections module? Write about the following members of the Collections module: namedtuple(), deque, Counter and UserDict and illustrate their usage.

SECTION-C

7. Write a detailed note on dictionaries. Write a program that repeatedly asks the user to enter product names and prices. Store all of these in a dictionary whose keys are the product names and whose values are the prices. When the user is done entering products and prices, allow them to repeatedly enter a product name and print the corresponding price or a message if the product is not in the dictionary.
8. Write a detailed note on object-oriented features available in Python. How are classes created and instantiated in Python? Explain with the help of detailed example.
9. Differentiate between error and exception. What happens when an exception is raised in a Python program? Explain any three built-in Python exceptions with relevant examples. Write a python program that has multiple except blocks.

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.