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B. Tech. (ECE) (Open Elective-II) 6th Semester (G Scheme) Examination, July-2022

PYTHON PROGRAMMING

Paper-OEC-ECE-318-G

Time allowed : 3 hours]

[Maximum marks : 75

Note : Attempt any five questions in all, selecting one question from each unit. Question No. 1 is compulsory. All questions carry equal marks.

1. Explain the following : 6×2.5=15
 - (a) Rules of Precedence to evaluate an expression in Python.
 - (b) Comparison operators with examples.
 - (c) Dictionary methods in Python (any three).
 - (d) Lists in Python.
 - (e) Abstract class in Python with example.
 - (f) Built-in-string manipulation functions/methods with examples (any two).

Unit-I

2. (a) What are control statement in Python ? Explain nested if statement using suitable examples. 8
- (b) Write the algorithm and Python program to find the sum of n numbers. 7

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3. (a) Describe various operators available in Python with examples. 8
- (b) Write the algorithm and Python program to check if number is Positive, Negative or Zero. 7

Unit-II

4. (a) What are control statements in Python ? Demonstrate the use of break and continue keywords in looping structure using snippet code/ examples. 8
- (b) Write the algorithm and Python program to find the sum of digits of a number. 7
5. (a) What do you understand by loop structure in Python ? Discuss "While loop", its syntax with examples. 8
- (b) Write a Python Program that reads a text file and changes the file by capitalizing each character of file. 7

Unit-III

6. (a) Illustrate basic list operators used in Python using suitable examples. 6

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- (b) Write algorithm and python program to search a specific value from the given list of values using Binary Search method and justify with suitable examples. 9
7. (a) Explain Dictionary and Tuples concepts, creation and accessing in Python with the help of suitable examples. 10
- (b) Write algorithm and python program to find the factorial of a number using recursive function. 5

Unit-IV

8. Discuss Multilevel & Multiple inheritance with suitable examples. Also appraise the polymorphism mechanism in Python with Syntax. 15
9. (a) Discuss Object Oriented Programming concepts and its advantages with suitable examples. 8
- (b) Create a class Student with data members : roll no., name, course, and aggregate marks. Create suitable methods for initialization/reading and displaying student information. 7

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