CBCS SCHEME

USN [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ]   18BT36

Third Semester B.E. Degree Examination, Dec.2019/Jan.2020
Python Programming

Time: 3 hrs.   Max. Marks: 100

Note: *Answer any FIVE full questions, choosing ONE full question from each module.*

Module-1

1   a.   What is an algorithm? Explain with an example. What are the building block of algorithms? **(10 Marks)**

    b.   Outline the 'Tower of Hanoi' problem with the help of figure. Suggest an algorithm to solve the Tower of Hanoi problem with relevant diagrams. **(10 Marks)**

OR

2   a.   What is flowchart and what is the purpose of it. Along with description list and draw the common symbols used in flowchart. Illustrate with an example. **(10 Marks)**

    b.   What is Pseudocode? Explain the common keywords used in pseudocode. Write a Pseudocode for finding the minimum in a list. **(10 Marks)**

Module-2

3   a.   What is Interpreter and compiler? Write the differences between them. Explain how python works in interactive mode and script mode with examples. **(10 Marks)**

    b.   Summarize the precedence of mathematical operators in python with examples. **(10 Marks)**

OR

4   a.   What is User defined functions? Explain the structure and syntax of user defined functions in python with example. **(10 Marks)**

    b.   Write a python function using arguments and return types for addition of two numbers. Call this function and display the result. Comment each line with explanation. **(10 Marks)**

Module-3

5   a.   What is Module in Python? How to use module in a program? Write a program to find the distance between two points. Explain each line using python comments. **(10 Marks)**

    b.   Python strings are Immutable. Justify with an example. **(10 Marks)**

OR

6   a.   Appraise with an example 'nested if' and 'elif' header in python. **(10 Marks)**

    b.   Explain with an example while loop, 'break' statement and 'continue' statement in python. **(10 Marks)**

Module-4

7   a.   Write a python program to perform linear search on a list. **(10 Marks)**

    b.   Briefly describe the operations on list with relevant codes. **(10 Marks)**

OR

8   a.   Write any five methods that operate on list with examples. **(10 Marks)**

    b.   What is fruitful function? Explain with an example compare fruitful function with void function. **(10 Marks)**

Module-5

9   a.   What is a dictionary in python? Give examples. **(10 Marks)**

    b.   Briefly describe with codes the various operations on dictionary. **(10 Marks)**

OR

10 a.   Write a python program to sort 'n' numbers using selection sort. **(10 Marks)**

    b.   Demonstrate with code the various operations that can be performed on tuples. **(10 Marks)**

* * * * *