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CBCS SCHEME

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18BT36

Third Semester B.E. Degree Examination, Aug./Sept. 2020
Python Programming

Time: 3 hrs. Max. Marks: 100

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

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

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Module-1

1 a. Define algorithm. Explain the building blocks of algorithm. **(10 Marks)**
b. Write a flowchart to insert a card in a list of sorted cards. **(05 Marks)**
c. Give the difference between recursion and iteration. **(05 Marks)**

OR

2 a. Define flowchart. Explain the rules for drawing a flowchart with example. **(08 Marks)**
b. Explain the steps in algorithmic problem solving. **(06 Marks)**
c. Write an algorithm and flowchart for tower of Hanoi problem. **(06 Marks)**

Module-2

3 a. Define variables. List the rules to declare variables in python. Demonstrate atleast 3 different types of variables with examples. **(10 Marks)**
b. Differentiate between python compiler and interpreter. **(05 Marks)**
c. Write the python program to find the sum of natural numbers upto 'n' where n is provided by user. **(05 Marks)**

OR

4 a. Define functions with syntax. Explain value-returning functions with example. **(05 Marks)**
b. Explain the rules of precedence of operators used by python language. **(05 Marks)**
c. Explain operators and operands in python with examples. **(10 Marks)**

Module-3

5 a. Explain chained and nested conditional statements along with syntax and flowchart. **(05 Marks)**
b. List 5 string built in functions along with syntax, description and example. **(05 Marks)**
c. Write python program for exchanging the values of two variables and to find distance between two points. **(10 Marks)**

OR

6 a. Differentiate between break and continue. **(05 Marks)**
b. Explain operations on strings in python. **(10 Marks)**
c. Write a python program to find whether a number is Armstrong number or not. **(05 Marks)**

Module-4

7 a. Explain any two fruitful functions in python. **(06 Marks)**
b. Explain list operations with suitable examples. **(06 Marks)**
c. Implement python program for Binary search and to find GCD of two numbers. **(08 Marks)**

OR

8	a.	Explain any 5 list methods with example.	**(05 Marks)**
	b.	Define list. Explain lists as arrays.	**(07 Marks)**
	c.	Write a note on list mutability and cloning list.	**(08 Marks)**

Module-5

9	a.	Define dictionary. Explain in detail about dictionary operations.	**(10 Marks)**
	b.	Write python program for selection sort and insertion sort.	**(10 Marks)**

OR

10	a.	Differentiate between list, tuple and dictionary.	**(05 Marks)**
	b.	Define tuple. Explain tuple operations in detail.	**(08 Marks)**
	c.	Write a note on list comprehension.	**(07 Marks)**

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