R20

SET - 1

I B. Tech II Semester Supplementary Examinations, Jan/feb-2024
PROBLEM SOLVING USING PYTHON
(Common to CSE-CS&T, CSE-CS, CSE-IOT&CS Incl BCT, CSE-CS&BS, CSE-IOT, Cyber Security)

Time: 3 hours   Max. Marks: 70

Answer any FIVE Questions one Question from Each Unit
All Questions Carry Equal Marks
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UNIT-I

1 a) Describe Arithmetic Operators, Assignment Operators, Comparison Operators, Logical Operators, and Bitwise Operators in detail with examples. [7M]

   b) Write a Python program using the user-defined function to compute the factorial of a given number. [7M]

(OR)

2 a) Explain the Identifiers, Keywords, Statements, Expressions, and Variables in Python programming language with examples. [7M]

   b) Write a Python program to print the sum of first 'n' numbers. [7M]

UNIT-II

3 a) Design a Python program to simulate Simple Calculator by Using Functions. [7M]

   b) Design a Python program to perform Matrix Addition using Nested Loo. [7M]

(OR)

4 a) Design a Python Program to Convert Decimal to Binary Using Recursion. [7M]

   b) Write a Python program to compute the trace of a matrix. [7M]

UNIT-III

5 a) What is a dictionary? Explain the methods available in the dictionary. [7M]

   b) How are lists updated in Python? Write a few methods that are used in Python Lists. [7M]
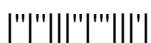
(OR)

6 a) Develop a Python Code for Looping over a dictionary using keys(), values() and items() methods . [7M]

   b) Distinguish between   i)Lists and Tuples   ii) Sets and Dictionaries. [7M]

UNIT-IV

7 a) Write a Python program to append text to a file and display the text. [7M]

   b) Write a Python program to create an instance of a specified class and display the namespace of the said instance. [7M]

(OR)

8 a) Write a Python program to read the last 'n' lines of a file. [7M]

   b) Write a Python program to create a class and display the namespace of the said class. [7M]

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UNIT-V

9 a) Explain how Python supports GUI. With example program. [7M]

    b) What happens if 'except' clause is written without any Exception type? Explain with an example. [7M]

(OR)

10 a) List few common exception types and explain these with an example. [7M]

    b) Explain the features of block-based visual programming language. [7M]

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