CE/AM/CS/CYS/DS/EC/EEE/ME 125 (R-22)

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I/IV B. Tech. DEGREE EXAMINATIONS, AUGUST - 2023

Second Semester

CE / AM / CS / CYS / DS / EC / EEE / ME

PROGRAMMING IN PYTHON

Time : **Three Hours** Maximum : **70** Marks

Answer All Questions

Answer ONE question from each Unit. 5x14=70 M

UNIT - I

1. a) Describe the features of Python that made it so popular.

   b) List out and explain Comparison, Identity and Membership operators in Python programming.

(OR)

2. a) Explain different arithmetic operators supported by Python. Discuss about their precedence and associativity.

   b) Write a Python program to convert height in feet and inches to cm. [1 feet = 12 inch and 1 inch = 2.54 cm] (Sample input : 2 feet 7 inch Sample output : 78.74 cm).

UNIT - II

3. a) Explain the execution behavior of various Decision making statements (Selective Statements) available in Python programming with neat flow diagrams.

   b) Write a Python program to get substring between characters in the input.

(OR)

4. a) What is the purpose of else clause for a loop ? Explain how else works with while and for loops with examples.

   b) Write a Python program that prints multiplication table of a given number.

UNIT - III

5. a) Explain about Negative indexing and List Slicing in Python with a sample program.

   b) Write a Python function to check whether a number is perfect or not.

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(OR)

6. a) Explain the steps to create a Dictionary in Python and list out Dictionary Built-in functions.

   b) Explain with an example, how + and * operators work with strings.

UNIT - IV

7. a) Define Lambda function in Python ? What are the benefits of Lambda function in Python? Demonstrate its usage through a sample program.

   b) What is an Anonymous function and when should you use it ? How Anonymous function is different from normal function ?

(OR)

8. a) What are Python modules ? Explain the steps to import specific attributes from a module into the current Namespace with appropriate code snippets.

   b) What are the different modes of operating a file in Python ? Explain the Python 'open()' built-in function.

UNIT - V

9. a) What happens if except clause is written without any Exception type ? Explain with an example.

   b) Illustrate the internal structure of a typical Python module with the suitable example ?

(OR)

10. a) Demonstrate implementation of hierarchical inheritance in Python with a program.

    b) Write Python code snippets to illustrate Method overriding and Method overloading concepts.