N.B.: (1) All questions are compulsory.

(2) All questions carry equal marks.

(3) Figures to the right indicate marks to a sub-question.

1. **Attempt any three of the following.**   (15M)
   a. What are the advantages of the Python programming language?
   b. How to assign a value to a variable? Explain with an example?
   c. Write a program to accept characters and print the name of the rainbow colour.
   d. Explain the nested if else with an example.
   e. Explain while loop with an example
   f. Write a program to accept a number and print factorial of the number.

2. **Attempt any three of the following.**   (15M).
   a. What is function explain with an example
   b. Write a short note on the Math function.
   c. Explain parameters and arguments used in function.
   d. Write a short note on string with an example.
   e. Strings are immutable to explain this.
   f. Explain string comparison with an example.

3. **Attempt any three of the following.**   (15M)
   a. Explain the different list operations with examples.
   b. What is tuple explained with an example.
   c. What is the difference between list and tuple?
   d. What is dictionary explains with examples.
   e. Write a Python program to find the index of an item of a tuple.
   f. Explain the concept of list in python.

4. **Attempt any three of the following.**   (15M)
   a. Define class A Class variable and data member.
   b. What do you mean by namespace?
   c. Explain the inheritance with an example.
   d. Explain abstraction with an example.
   e. Write a short note on regular expressions.
   f. Write a program to demonstrate Class.

5. **Attempt any three of the following.**   (15M)
   a. Write a difference between CLI & GUI.
   b. Write a short note on tkinter.
   c. Write a program in Python to create a login page.
   d. Explain button and entry in detail.
   e. Explain the insert command.
   f. How to delete records from a table in python.

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