NOVEMBER 2024

52501/125C1A/ 141C1A/120C1A/ 127C1A/126C1A

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Define binary number system.

2. Compare procedural and object oriented programming.

3. List the Python standard library.

4. What is indentation in python?

5. Recall Boolean flags.

6. Mention the common list operation.

7. What is function routine?

8. How to pass the default arguments inside function?

9. Discuss the fundamental turtle attributes.

10. What is module specification?

11. Define Class.

12. Interpret on Encapsulation.

PART B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

13. Write a Python program that allows the user to enter any integer base and integer exponent, and displays the value of the base raised to that exponent. Your program should function as shown below.

    What base? 10

    What power of 10 ? 4

    10 to the power of 4 is 10000

14. Write short notes on computer hardware and software.

15. Difference between List and dictionary.

16. Explain the following with an example.

    (a) Calling Value-Returning Functions (b) Calling Non-Value-Returning Functions

17. Illustrate local, global and built-in namespace used in Python.

18. Point out the Object Oriented Programming in detail.

19. Write a Pandas program to add, subtract, multiple and divide two Pandas Series.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Write the steps involved in process of computational problem solving.

21. Summarize about iterative control statements in Python with an example.

22. Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument.

23. Explain about Python modules with an example.

24. Construct how to defining a class in Python with an example.

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