NOVEMBER 2021 **50435/SE23A**

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Why is java known as platform independent language?
2. Distinguish between the classes and objects.
3. Write the general form of a method declaration.
4. What are the two ways to creating a thread?
5. Define: "Multithreading".
6. Write a note on stream.
7. What is an applet?
8. Write down any two application of a stack.
9. What do you mean by binary tree?
10. Define the following terms:
    (a) Directed Graph
    (b) Complete Graph.
11. What is a doubly linked list?
12. Define the term "Node" in a linked list.

PART B — ($5 \times 5 = 25$ marks)

Answer any FIVE questions.

13. List and explain all the arithmetic and bitwise operators.

14. What are objects? How are they created from a class? Explain.

15. What is a package? How to create a package?

16. How do applets differ from application programs in java?

17. What is a stack? What are the operations to manipulate a stack ADT?

18. Summarize the ways to represent a binary tree.

19. Elaborate the representation of graph with neat diagram.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

20. Write a java program to find the sum of the digits of a given integer.

21. Compare and contrast overriding and overloading a method.

22. What is an interface? Describe the various forms of implementing interfaces. Give examples.

23. Discuss the various operations performed on a singly linked list.

24. Write an algorithm to delete a particular node from binary search tree.

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