MAY 2023 **P/ID 37510/PMA2K**

Time : Three hours Maximum : 80 marks

PART A — ($10 \times 2 = 20$ marks)

Answer any TEN questions

1. List the five types of tokens included in Java.

2. Why do we need the import statement?

3. Give the general form of assignment statement.

4. Give the general form of operator.

5. What are the data types supported in Java?

6. Give the general form of method declaration.

7. Give the basic form of class definition.

8. Write the expression $x = \dfrac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ in Java.

9. What is an abstract class?

10. What is a remote applet?

11. Define inter–thread communication.

12. What is type casting? Why is it required in programming?

PART B — ($5 \times 6 = 30$ marks)

Answer any FIVE questions

13. Why main ( ) in Java is declared as *public static void main?* What if the main method is declared as private?

14. What are command line arguments? How are they useful?

15. Describe different forms of inheritance with examples.

16. How to pass arguments to the constructor of a base class?

17. Give the list of classes and interfaces in java util packages.

18. Explain static data members and static member functions with example.

19. Write a Java code to count number of vowels, words in a given sentence.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions

20. Give the summary of Java statements.

21. Explain how to exit a loop and also bypassing and continuing in loops.

22. Write a Java program to simulate the operation of numerical calculator to perform the functions Addition (+), Subtraction (–), Multiplication (*) and Division (/).

23. Explain the life cycle of a thread.

24. Write a program to perform the following functions using classes, objects, constructors and destructors wherever necessary.

    (a) Read 7 subject marks of 50 students

    (b) Calculate the total and print the result on the screen.

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