2023

Time - 3 hours

Full Marks - 60

Answer **all groups** as per instructions.
Figures in the right hand margin indicate marks.

GROUP – A

1. Answer <u>all</u> questions and fill in the blanks as required.   [1 × 8

    (a) JIT stands for _____.

    (b) _____ compiles Java code into byte code.

    (c) Does a program run if we write static public void instead of public static void ?

    (d) _____ is a real time entity having some state and behaviour.

    (e) What is the purpose of a default constructor ?

    (f) Does constructor return any value ?

    (g) Can we override static method ?

    (h) What happens if a program is executed without main() method ?

GROUP – B

2. Answer <u>any eight</u> of the following questions within two to three sentences each. [1½ × 8

(a) Why is Java a platform independent language ?

(b) Is constructor inherited ?

(c) What is a static variable ?

(d) What is this keyword in Java ?

(e) What is meant by aggregation ?

(f) Is pointer supported in Java ?

(g) Can we overload the main() method ?

(h) Define enumeration.

(i) What is an uncaught exception ?

(j) What is the need of TCP / IP ?

GROUP – C

3. Answer <u>any eight</u> of the following questions within 75 words each. [2 × 8

(a) Why is Java not a pure object oriented language ?

(b) What are the various access specifiers in Java ?

(c) Can we overload constructors ?

(d) What is a static method ?

(e) Define inheritance.

(f) Why is multiple inheritance not supported in Java ?

(g) What are the ways in which method overloading can be done ?

(h) Explain the differences between arrays and arraylists in Java.

(i) How do you create a thread in Java ?

(j) Can you have multiple catch blocks in a single try block ?

GROUP – D

Answer **all** questions within 500 words each.

4. List the features of Java programming language. [6

OR

Explain the basic structure of a Java program with the help of an example program.

5. What are the differences between constructor and method ? Name the types of constructors that are used in Java. [6

OR

Illustrate the differences between extends and implements with a Java program.

6. How do you declare and initialise an array in Java ? Write down a Java program finding maximum element in an array. [6

P.T.O.

OR

Write a Java program to demonstrate basic file handling operation such as writing data to file and reading data from a file.

7. Write a Java program to demonstrate exception handling using try, catch and finally blocks. [6

OR

Explain the differences between TCP and IP. How does TCP ensure reliable data delivery ?