22412

3 Hours / 70 Marks   Seat No. ☐☐☐☐☐☐☐☐☐

15 minutes extra for each hour

Instructions – (1) All Questions are *Compulsory*.

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1.   **Attempt any FIVE of the following:**   **10**

a) Enlist the logical operators in Java.

b) Give the syntax and example for the following functions

   i)   min ()

   ii)   Sqrt ()

c) Define the interface in Java.

d) Enlist any four inbuilt packages in Java.

e) Explain any two methods of File Class.

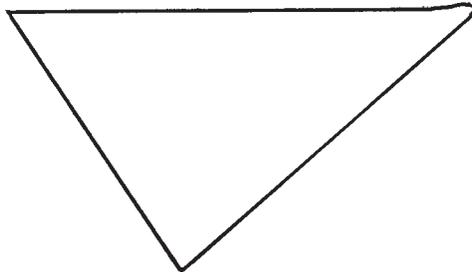f) Write syntax of elipse.

g) Enlist any four compile time errors.

Marks

2. Attempt any THREE of the following: 12

a) Explain any four features of Java.

b) Write a Java program to copy the content of one file into another.

c) Write the difference between vectors and arrays. (any four points)

d) Explain exception handling mechanism. w.r.t. try, catch, throw and finally.

3. Attempt any THREE of the following: 12

a) Write a Java program to find out the even numbers from 1 to 100 using for loop.

b) Explain any four visibility controls in Java.

c) Explain single and multilevel inheritance with proper example.

d) Write a java applet to display the following output in Red color. Refer Fig No. 1.

Fig No. 1.

4. Attempt any THREE of the following: 12

a) Explain switch case and conditional operator in java with suitable example.

b) Draw and explain life cycle of Thread.

c) Write a java program to sort an 1-d array in ascending order using bubble-sort.

d) Explain how to create a package and how to import it.

e) Explain
   i)   drawLine
   ii) drawOval
   iii) drawRect
   iv) drawArc

5.   **Attempt any <u>TWO</u> of the following:**   **12**

    a)   How to create user defined package in Java. Explain with an suitable example.

    b)   Write a Java program in which thread A will display the even numbers between 1 to 50 and thread B will display the odd numbers between 1 to 50. After 3 iterations thread A should go to sleep for 500 ms.

    c)   What is constructor? List types of constructor. Explain paramaterized constructor with suitable example.

6.   **Attempt any <u>TWO</u> of the following:**   **12**

    a)   Write a Java program to count the number of words from a text file using stream classes.

    b)   Explain the difference between string class and string buffer class.
Explain any four methods of string class.

    c)   Write a Java applet to draw a bar chart for the following values.

Year	2011	2012	2013	2014
Turnover (Rs. crores)	110	120	170	160

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