Total number of printed pages–3

# 2018

## JAVA PROGRAMMING

Paper : IT 501 (Back)

*Full Marks : 100*

Time : Three hours

### *The figures in the margin indicate full marks for the questions.*

Answer ***any five*** questions.

1. (a) Write a program in Java, which will read a text and count all occurrences of a particular word.                    10

   (b) What is a thread ? Describe the complete life cycle of a thread.

                                              10

2. (a) Write a program to create a vector with seven elements. Remove element at 3rd position and insert new element at 5th location. Display the updated vector.

                                              10

(b) Explain dynamic method dispatching with example. 10

3. (a) If $x = 7$ and $y = -9$ find the value of the following : 10

$x \& y, x | y, x \wedge y, \sim x, \sim y, x \ll 2, y \ll 2,$
$x \gg 2, y \gg 2, x \ggg 1$

(b) What is meant by Object-oriented programming ? List the constants used in Java. 2+8=10

4. (a) Write a program, which will read a string and rewrite a string in the alphabetic order. For example, the word STRING should be written as GINRST. 10

(b) Describe the uses of final and super keywords with respect to inheritance. 10

5. (a) What is Layout Manager ? Describe the use of Grid Layout Manager.

10

(b) Write applet to do the following : 10

   (i) Drawing a polygon

   (ii) Drawing a line graph

6. Write a Java program to find the smallest distance between two neighbouring numbers in an array. For example, in sequence

   4, 8, 6, 1, 2, 9, 4

   the minimum distance is 1 (between 1 and 2) 20

7. Write short notes on : 30

   (i) JVM

   (ii) Socket Programming

   (iii) Event Handling

   (iv) Command Line Arguments

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     4, 8, 6, 1, 2, 9, 4
     the minimum distance is 1 (between 1 and 2) 

20

7. Write short notes on : 

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*(i)* JVM

*(ii)* Socket Programming

*(iii)* Event Handling

*(iv)* Command Line arguments.