**QP Code : 3072**

OLD COURSE

(3 Hours)

[Total Marks :100]

**N.B.:**   (1) Question **No. 1** is **Compulsory**
          (2) Solve any **Four** questions out of remaining.

1.   (a) What is main thread?                                                         [4]
     (b) Explain the term Robustness and portability in Java.                          [4]
     (c) Explain System.arraycopy () used in Java Programming.                         [4]
     (d) Explain Bitwise and logical operator with example.                           [4]
     (e) Explain the structure of java virtual machine                                [4]

2.   (a) Explain the role of wrapper class.                                           [5]
     (b) Explain method overriding with example                                       [5]
     (c) What is vector? Explain any five methods of vector.                          [5]
     (d) Write a program to demonstrate packages in java                              [5]

3.   (a) Write a program to demonstrate call by value to swap two numbers.            [5]
     (b) WAP to find the roots of a quadratic equation                                [5]
     (c) WAP to check whether the entered number is Armstrong or not                  [5]
     (d) Describe multidimensional array                                              [5]

4.   (a) Write a program to display following tree.                                   [5]
              1234
              123
              12
              1
     (b) Explain multilevel inheritance with suitable example.                        [5]
     (c) Write a program to display whether a input number is prime or not.           [5]
     (d) Write a program for matrix addition.                                         [5]

5.   (a) WAP in java interchange the values of two numbers using command line argument.  [10]
     (b) WAP in java to check whether entered character is lower case, upper case, numeric  [5]
        (Use if-else).
     (c) WAP to demonstrate parameter passing to Applet                               [5]

6.   (a) What is exception? Explain the exception handling in java with suitable example  [10]
     (b) Write a program to Demonstrate method overloading & constructor overloading.  [10]

7.   (a) Explain interface. How to implement an interface? Explain with example.      [5]
     (b) Create an applet that displays "All the Best".                               [5]
     (c) Explain what are Abstract Class and Abstract Methods.                         [5]
     (d) WAP to count frequency of a word in a sentence                               [5]