Con. 5526–13.   **(OLD COURSE)**   **LJ–10211**

(3 Hours)   **[Total Marks : 100**

N.B. : (1) Question No. **1** is **compulsory**.

      (2) Attempt any **four** questions from remaining **six** questions.

      (3) **All** programs should be written in **Java** only.

1.   (a)   Explain the term Robustness and portability in Java.   **4**
      (b)   Explain Bitwise and logical operators with example.   **4**
      (c)   Explain System.arraycopy ( ) used in Java programming.   **4**
      (d)   Explain the thread methods : isAlive ( ), join ( ), sleep ( )   **4**
      (e)   Create an applet that displays human face.   **4**

2.   (a)   WAP in Java to interchange the values of two numbers using commnad line argument.   **5**
      (b)   What is vector ? Explain any five methods of vector.   **5**
      (c)   Explain Multi level inheritance with suitable example.   **5**
      (d)   Write steps of creating applet.   **5**

3.   (a)   WAP in Java to check whether entered character is lower case, uppercase, numeric   **5**
         using if-else.
      (b)   Explain how to access protected members of super class in subclass.   **5**
      (c)   Explain what are Abstract Class and Abstract Methods.   **5**
      (d)   Explain how user defined packages are created and accessed in Java.   **5**

4.   (a)   Explain method overloading and constructor overloading with example.   **10**
      (b)   Explain interface. How to implement an interface ? Explain with example   **5**
      (c)   Explain java.util package.   **5**

5.   (a)   WAP to check whether entered member is Armstrong or not.   **5**
      (b)   Explain Java Exception handling Mechanism.   **5**
      (c)   Explain Thread Life Cycle.   **5**
      (d)   WAP to demostrate parameter passing to Applet.   **5**

6.   (a)   WAP to find roots of a quadratic equation.   **5**
      (b)   WAP to count frequency of a word in a sentence.   **5**
      (c)   WAP to create user defined exception.   **5**
      (d)   What is Synchronization ? When do we use it.   **5**

7.   (a)   WAP to demonstrate method overriding.   **5**
      (b)   Explain the advantages of Vector over Array.   **5**
      (c)   Explain static members.   **5**
      (d)   How to achieve multiple inheritance in Java.   **5**