ALCCS

Code: CT21   **Subject: OOPS USING JAVA**
Time: 3 Hours   **Max. Marks: 100**

SEPTEMBER 2010

NOTE:

- **Question 1 is compulsory and carries 28 marks. Answer any FOUR questions from the rest. Marks are indicated against each question.**
- **Parts of a question should be answered at the same place.**

Q.1 a. Write a note on Java class loaders.

   b. Explain life cycle of a thread with help of a diagram. How do the wait and notifyAll/notify methods enable cooperation between threads?

   c. Write a small java program containing user defined exceptions.

   d. Differentiate final, finally and finalize with reference to java.

   e. Explain the drawPolygon () method of Polygon class with the help of an example.

   f. How java swing controls differs from java AWT controls.

   g. Discuss MouseListenener interface and list out its functions.   **(7 × 4)**

Q.2 a. Explain the benefits and applications of OOP in detail.

   b. How does Java handle strings? Describe the constructors of String and StringBuffer classes.   **(9+9)**

Q.3 a. What are the advantages of using interfaces in Java? How are they different from Abstract Classes?

   b. Explain Method overloading & Method overriding with suitable example. Can you overload operators in java?   **(9+9)**

Q.4 a. How do we design a package? What are the steps to add classes and interfaces in a package? Give suitable example.

   b. Explain Multithreading. How java implements its thread Model?   **(9+9)**

Q.5 a. Discuss the Java error handling mechanism? What is the difference between 'unchecked exceptions' and 'checked exceptions'? What is the implication of catching all the exceptions with the type "*Exception*"?

   b. Write a Java program to copy one file to another file with the help of byte stream classes. **(9+9)**

Q.6 a. Describe different types of Layout Manager (Flow Layout, Grid Layout, and Border Layout) in Java using suitable examples.

   b. How java implements UDP protocol? Discuss various classes available in Java to support UDP protocol.   **(9+9)**

Q.7 a. List Three UI components of swings, their classes and constructors.

   b. Explain the Applet life cycle. Also discuss Applet Tag used in HTML and attributes used in Applet Tag giving suitable example.