

**II B.Tech II Semester Regular Examinations, Apr/May 2008
OOP THROUGH JAVA**

(Common to Electronics & Communication Engineering, Computer Science & Engineering, Information Technology, Computer Science & Systems Engineering, Electronics & Telematics and Electronics & Computer Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE Questions
All Questions carry equal marks**

1. (a) Describe the genesis of java. Also write brief overview of java.
(b) Write a program to convert the given temperature in Fahrenheit to Celsius using the following conversion formula $C = (F - 32)/1.8$ And display the values in a tabular form. [8+8]
2. (a) What is an array? Why arrays are easier to use compared to a bunch of related variables?
(b) Write a program for transposition of a matrix using arraycopy command. [6+10]
3. Create a base class with an abstract print() method that is overridden in a derived class. The overridden version of the method prints the value of an int variable defined in the derived class. At the point of definition of this variable, give it a nonzero value. In the base-class constructor, call this method. In main(), create an object of the derived type, and then call its print() method. Explain the results. [16]
4. Write a program create an interface U with three methods. Create a class A with a method that produces a reference to a U by building an anonymous inner class. Create a second class B that contains an array of U. B should have one method that accepts and stores a reference to a U in the array, a second method that sets a reference in the array (specified by the method argument) to null and a third method that moves through the array and calls the methods in U. In main(), create a group of A objects and a single B. Fill the B with U references produced by the A objects. Use the B to call back into all the A objects. Remove some of the U references from the B. [16]
5. (a) Explain throws statement in Java with the help of an example program.
(b) What is the difference between throw and throws statement. [8+8]
6. (a) Write a java program which draws a dashed line and dotted line using applet.
(b) Write a java program to draw a polygon of eight edges. [10+6]
7. (a) In what way JList differ from JComboBox?

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- (b) JList does not support scrolling. Why? How this can be remedied? Explain with an example. [6+10]
8. Define sockets. Use socket programming to design a client/server application that takes the password as input and checks whether it is correct. The program should print the appropriate message. [16]
