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## MANIPAL INSTITUTE OF TECHNOLOGY (Constituent Institute of Manipal University) MANIPAL-576104



## FOURTH SEMESTER B.E. END SEMESTER DEGREE EXAMINATION 25-05-2011

SUBJECT: CSE - 210 EVENT-DRIVEN PROGRAMMING USING JAVA

Time: 3 Hour Max. Marks: 50

## **Instructions to Candidates**

- Answer any 5 of the following.
- 1. a) Create an abstract class room having members i) length ii) width iii) height. Extend it to implement the methods for rectangular shaped room and square shaped room. Implement method to compute the cost of whitewashing the inner surface of the room at the rate of 15/- per sq. ft. Handle all possible ways to implement the methods. Exclude the cost of painting the floor. Write main() to test the classes and also show how dynamically polymorphism can be achieved here.

  5 marks
  - b) Explain the concept of byte code. List the buzz words that are found in Java and not in C++.

    5 marks
- 2. a) What is a package? How do you create and use it. Show with an example.

  5 marks
  - b) Write a Java program to read 5 subject's marks from the keyboard. If the number entered is negative throw user defined exception called NegativeNumberException. If the number entered is positive and out of the range<0-100>, throw userdefined exception called OutOfRangeException. Handle the required built in exception also. Store valid values in an array. Read a number (marks) which is to be search in the array. Display suitable message if the number exists in the array or not.
- 3. a) Create an applet containing a pie chart containing 3 colors. The area occupied in the pie chart can be specified in the html file.

  5 marks

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- b) Bring out the importance of adapter class. Explain the use of inner class. Explain the benefits of anonymous inner class in AWT. Illustrate with an example.

  5 marks
- 4 a) Write a Swing program containing two tabs. First is the FlowerName, Second tab is the Countryname. In the first tab we have a set of check boxes containing the names of the flowers. On clicking the flowers of your choice display the text label of the color(s) chosen. Clicking second tab no action takes place.

  5 marks
  - b) Explain the necessity of synchronized keyword. Show the importance of the synchronized block statement.

    5 marks
- 5 a) Assume that a file name "Employee.txt" contains the names of ten employees of a software firm in a file along with his/her gender. Write a program to display the list of only the male employees on to the console. Use serialization concept.

  5 marks
  - b) Explain the steps required to establish a connection between Java program and database.

    5 marks
- 6 a) What is a servlet? Explain the advantage of servlet over CGI? 5 marks
  - b) Explain with brief example programs the following layout managers
    i) Border layout
    ii) Grid layout
    5 marks

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