



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



**FOURTH SEMESTER B.E. END SEMESTER DEGREE EXAMINATION**  
**24-05-2012**

**SUBJECT: CSE 208 EVENT DRIVEN PROGRAMMING USING JAVA**

Time: 3 Hours

Max. Marks: 50

**Instructions to Candidates**

- Answer any 5 of the following.

- 1A. Identify unnecessary parentheses, if any, in the following expressions:  
 i)  $(x-(y/5)+z)\%8)+25$   
 ii)  $((x-y)*p)+q$   
 iii)  $(m*n)+(-x/y)$   
 iv)  $x/(3*y)$  -2
- 1B. With an example, explain labelled continue statement. -2
- 1C. Explain Java's Automatic Type Conversions. Illustrate with examples. -2
- 1D. What do you mean by method overriding? Illustrate with an example program. -4
- 2A. Implement a superclass Person. Make two classes, Student and Instructor, that inherit from Person. A person has a name and a year of birth. A student has a department, and an instructor has a salary. Write the class definitions, the constructors, and the methods to String for all classes. Write a main method that tests these classes and methods. -5
- 2B. Explain with example the steps required to access the database using JDBC. -5
- 3A. Explain how a package is created and used with an example program. -4
- 3B. Create an interface containing one method: `int increment (int param)`. Create two different classes which implement this interface. In one class the parameter is incremented by 1 and in the other class it is incremented by 2. Write a complete program. In `main()` use interface reference to access the implementation. -3
- 3C. Write a program that creates a thread by implementing the Runnable interface. In the run method, loop the following task 5 times: print the name of the current thread and then sleep for 3 seconds -3

- 4A. Explain how does the inter-thread communication takes place between two threads. Illustrate with an example -6
- 4B. Write a java program using a function called `area( )`, to compute the area of a cuboid ( $2(\text{length} * \text{breadth} + \text{breadth} * \text{height} + \text{height} * \text{length})$ ). Read the required inputs from the keyboard and display the area. -4
- 5A. Explain a JTree component with constructors, events and listeners. How is a tree constructed? -4
- 5B. Write an applet program which takes three integer values interactively from the user by using 3 textfields and displays the largest value in a label. -4
- 5C. Explain the `setXORMode( )` and `setPaintMode( )` methods with example. -2
- 6A. What is a listener? What are its major requirements? List any five event listener interfaces with their methods. -4
- 6B. Develop a swing application which contains a main panel with grid layout manager. Add 26 labeled panels (a panel with a label on it), with characters from 'A' to 'Z'. The output of the program execution must be as shown below: -6

