

**III B.Tech II Semester Supplementary Examinations,  
November/December 2005  
OBJECT ORIENTED PROGRAMMING SYSTEMS THROUGH JAVA  
(Bio-Medical Engineering)**

**Time: 3 hours**

**Max Marks: 80**

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

\*\*\*\*\*

1. (a) Write the different kinds of arithmetic and relational operators in Java. [8]  
(b) Discuss the package java.lang in detail. [8]
2. (a) What is a class ? How does it accomplish data hiding ? [6]  
(b) Explain the difference between an object and a class. [6]  
(c) What is a constructor ? what are its special properties ? [4]
3. (a) Discuss the use 'super' in sub class methods and variables by sample program. [8]  
(b) What is dynamic dispatch ? Explain by a sample program. [8]
4. Develop an applet that receives three numerical values as a input from the user and then displays the largest of the three on the screen. Write a HTML page and test the applet. [16]
5. (a) Explain the class hierarchy of various window types. [8]  
(b) Write down any event generators. [8]
6. Differentiate event sources and event listeners in an applet with an example. [16]
7. (a) Describe the syntax of throw, throws, try, finally. [8]  
(b) List the built in exceptions of Java. [8]
8. Write a Java program to read a set of sentences from a text file and check the following :  
(a) Number of vowels [5]  
(b) Number of Words [5]  
(c) Number of characters  
And produce a formatted report. [6]

\*\*\*\*\*