

III B.Tech II Semester Supplementary Examinations, April/May 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.
(b) Discuss the package java.lang in detail.
2. (a) What is a class ? How does it accomplish data hiding ?
(b) Explain the difference between an object and a class.
(c) What is a constructor ? what are its special properties ?
3. (a) Consider two calls
Public class D extends B
 { Public void f()
 { this.g(); // 1
 }
 public void g()
 { super.g() //2
 }

 }
Which one of them is an example of early binding ? Which one of them is an example of late binding ? Explain.
(b) Explain the term shallow copy and deep copy.
(c) Implement a super class Person. Make Y two classes , Student and Instructor. Inherit from Person. A person has a name and a year of Birth. A student has a major and an instructor has a salary. Write the Class definitions , the constructors.
4. Write a program to create 4 x 4 grid and fills it in with the 15 buttons, each lable with its index.
5. (a) Explain the class hierarchy of various window types
(b) Write down any event generators
6. Explain the HTML Applet tag in detail with an example.
7. (a) Explain how exceptions are handled in Java. Demonstrate how exceptions are thrown.
(b) Describe with the help of a diagram the exception class hierarchy.
8. (a) List out the interfaces defined in java.io package (Java2)

- (b) Explain the following:
- i. System.in
 - ii. System.out
 - iii. System.err
- (c) What is a PrintWriter class? Mention any two constructors of PrintWriter class?
