

**FACULTY OF ENGINEERING**

**B.E. 2/4 (CSE) II-Semester (Supplementary) Examination, December 2010**

**OBJECT ORIENTED PROGRAMMING USING JAVA**

Time : Three Hours]

[Maximum Marks : 75

**Note :—** Answer *all* questions of Part A. Answer *five* questions from Part B.

**PART—A (Marks : 25)**

1. What is the result of the Java expression (17·0/0·0) ?
2. Suppose a, b are two integer variables, what does the following Java code fragment do ?  
    a = a ^ b  
    b = b ^ a  
    a = a ^ b
3. Which is the base class for all events ?
4. What is the difference between a Component and a Container ?
5. How many catch clauses can a try/catch statement contain ?
6. What is the difference between an Iterator and a List-Iterator ?
7. What is the purpose of any Java.io—class that contains the word Buffer in its name ?
8. What is the difference between start ( ) and run ( ) methods of a thread ?
9. What is the difference between public and default access levels of members of a class ?
10. What is the difference between capacity and size of a vector class ?

**PART—B (Marks : 50)**

11. (a) Explain the usage of final keyword in different contexts.  
    (b) Write a program to implement complex number class with the following methods :  
        (i) addition (ii) subtraction (iii) multiplication of two given complex numbers.
12. (a) Is main ( ) a class method or instance method ? Explain your answer.  
    (b) Write a Java program to read 'n' numbers from console and print their sum and average.
13. (a) What are different ways of creating a thread ? Give examples.  
    (b) What is the difference between a String and String Buffer class ? Explain with example.

14. (a) Use comparator interface in collecting framework to sort a list of names in ascending order.  
(b) Describe the usage of Iterator interface in collecting framework.
15. (a) Write a Java program to print last n lines of a given text file.  
(b) What combination of classes can be used to write and read serializable objects to and from a file? Illustrate with an example.
16. (a) Write a program to display "hello world" in a window using AWT classes. Use adapter classes to handle window events.  
(b) What is the difference between paint ( ) and repaint ( ) methods?
17. Write short notes on :
  - (a) Applet life cycle
  - (b) Interfaces and abstract classes.