

Code: EC5T6FE1, EE5T6FE4, ME5T6FE1

III B.Tech - I Semester – Regular Examinations - November 2015

**OBJECT ORIENTED PROGRAMMING
THROUGH JAVA
(Common to ECE, EEE, ME)**

Duration: 3 hours

Marks: 5x14=70

Answer any FIVE questions. All questions carry equal marks

- 1 a) Write short notes on the following.
- i) Scope of variables 4 M
 - ii) Data Types in JAVA 4 M
- b) Describe in detail the notion of class with an example. 6 M
- 2 a) Write short notes on the following.
- i) Garbage collection 4 M
 - ii) Wrapper classes 4 M
- b) Using String class, describe the concept of immutable classes and how objects of that classes work differently. 6 M
- 3 a) Describe in detail the concept of abstract classes with a code example. 8 M

- b) Show and explain with example, how one can override the methods of base class in derived class? 6 M
- 4 a) Write short notes on:
- i) Differentiate abstract class and interface 4 M
 - ii) Extending Interfaces 4 M
- b) Write a package with a simple Complex Number class in it & use it in another class that has main in it outside the package. Explain. 6 M
- 5 a) Explain Exception Handling in Java with an example program demonstrating try, catch and passing on exceptions through stack unwinding. 8 M
- b) Describe in detail the life-cycle of a Thread in JAVA. 6 M
- 6 a) Describe in detail Byte Streams, Character Streams and Buffered Streams and give one example class in java.io package for each of these. 8 M
- b) Write a program to read from a file and print the count of words in the file. 6 M
- 7 a) Write short notes on:
- i) Limitations of AWT 4 M
 - ii) Border layout 4 M

b) Write a simple program that illustrates the use of Listeners for implementing delegation event model. 6 M

8 a) Explain with an example “queues” in data-dictionary. 8 M

b) Describe the importance of hashcode and equals methods in Object class. 6 M