

Code No: 117FX

**R13**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**B. Tech IV Year I Semester Examinations, November/December - 2016**

**OBJECT ORIENTED PROGRAMMING THROUGH JAVA**

**(Electronics and Communication Engineering)**

**Time: 3 Hours**

**Max. Marks: 75**

**Note:** This question paper contains two parts A and B.  
Part A is compulsory which carries 25 marks. Answer all questions in Part A.  
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

**PART- A**

**(25 Marks)**

- 1.a) What is the difference between an object and a class? [2]
- b) How does a class accomplish data hiding? [3]
- c) What is the purpose of inheritance? Give example. [2]
- d) What is an interface? Give example. [3]
- e) What are the benefits of exception handling? [2]
- f) What is thread synchronization? Explain. [3]
- g) What is Event listener? Explain. [2]
- h) What is window? What are the operations of window? [3]
- i) What are the limitations of AWT? [2]
- j) State the differences between applets and applications. [3]

**PART-B**

**(50 Marks)**

- 2.a) What are the unique advantages of an object oriented paradigm? [5+5]
  - b) What is a constructor? What are its special properties? [5+5]
- OR**
- 3.a) What are the different kinds of bitwise and Boolean logical operators in Java? [5+5]
  - b) Illustrate dynamic binding with a Java program. [5+5]
- 4.a) What are the differences between an interface and class. Explain with suitable examples. [5+5]
  - b) Describe the various forms of implementing interfaces. Give examples of java code for each case. [5+5]
- OR**
- 5.a) Define the variable super and its uses with an example. [5+5]
  - b) Write a Java Program to show the use of Abstract classes. [5+5]
- 6.a) Discuss about "thread priorities" with examples. [5+5]
  - b) What do you mean by an exception and error? Give the hierarchy of the exceptions in java. [5+5]
- OR**
- 7.a) What does extending a thread mean? Explain by means of a program. [5+5]
  - b) How to create a user defined exception? Explain with an example. [5+5]

- 8.a) What is an event driven programming and how is it structured?  
b) What is an adapter class and how can adapter classes be effective?

[5+5]

OR

- 9.a) Explain the class hierarchy of various window types.  
b) How events are categorized in Java? Explain.

[5+5]

10. Write about applet basics and state how it runs in a window. Explain how an applet itself updates its window during an information change.

[10]

OR

- 11.a) With a neat sketch, explain the Swing architecture.  
b) With a program, explain, how to create popup menu's in Swing?

[5+5]

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