

**R13**

Code No: 114CX

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech II Year II Semester Examinations, May-2015

JAVA PROGRAMMING

(Common to CSE, IT)

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 data abstraction? [2M]
- b) List string manipulation functions of Java String class. [3M]
- c) Differentiate between interface and abstract class. [2M]
- d) Explain the use of 'final' keyword. [3M]
- e) Differentiate between thread and process. [2M]
- f) List any six built-in exceptions in Java. [3M]
- g) What is the difference between array and vector? [2M]
- h) List the byte stream classes. [3M]
- i) What are the containers available in swing? [2M]
- j) Compare Applets with application programs. [3M]

**Part-B**

(50 Marks)

- 2.a) Explain the basic concepts of object oriented programming.
- b) What is the usage of enumerated data type? Give examples. [5+5]

**OR**

- 3.a) Discuss Java jump statements.
- b) Write about garbage collection in Java.
- c) Explain the use of 'this' keyword. [3+3+4]

- 4.a) Explain method overriding with a suitable example program.
- b) With suitable program segments describe the usage of 'super' keyword. [5+5]

**OR**

- 5.a) What is a nested class? Differentiate between static nested classes and non-static nested classes.
- b) How to define a package? How to access, import a package? Explain with examples. [5+5]

- 6.a) With a suitable Java program explain user-defined exception handling.
- b) What is meant by re-throwing exception? Discuss a suitable scenario for this. [5+5]

**OR**

- 7.a) Does Java support thread priorities? Justify your answer with suitable discussion.
- b) Describe producer-consumer pattern using inter-thread communication. [5+5]

- 8.a) Give an account of Random collection class  
b) Discuss the methods of Stack class  
c) What is the need of Generics? [3+3+4]

**OR**

- 9.a) Discuss the four types of JDBC driver with suitable diagrams.  
b) Write a JDBC program to update the amount balance in an account after every withdrawal. Assume the necessary database table. [5+5]

- 10.a) What is the significance of layout managers? Discuss briefly various layout managers.  
b) Give an overview of JButton class. [5+5]

**OR**

- 11.a) Explain delegation event model.  
b) Write an Applet to draw a smiley picture accept user name as a parameter and display welcome message. [5+5]

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