Roll No. _____   Total No of Pages: 3

6E3204

6E3204
B. Tech VI Sem. (Main & Back) Exam., May. 2013
Computer Engg.
6CS 4 Programming in Java
Common to CS & IT

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks: 24

Instructions to Candidates:

*Attempt any **five questions,** selecting **one question** from **each unit**. All questions carry **equal** marks. Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly.*

Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination.

1._____   2._____

UNIT – I

Q.1 (a)   What do you mean by object oriented programming languages? Explain the features of JAVA that are different from C+ + using suitable examples.   [8]

(b)   What are relational operators? List the JAVA relational operators with examples.

[8]

OR

Q.1 (a)   Explain (in short).

1.   JAVA byte code

2.   JAVA Virtual machine.   [4x2=8]

(b)   Explain bit wise logical operators and bit shift operators in JAVA using an appropriate example.   [8]

UNIT – II

Q.2 (a) What is a class? Explain how the attributes and methods are defined for a class? How do you relate a class and an abject? Illustrate with an example. [8]

(b) Explain the structure of a for loop? How can a for loop be replaced by a while loop and simple if statements? Describe using a suitable example. [8]

OR

Q.2 (a) What is inheritance in JAVA? Explain multiple inheritance with a simple example and relate it with JAVA implementation. [8]

(b) Write short notes on:-

    i) Method overriding

    ii) Constructors in JAVA

    iii) Nested loops

    iv) Switch statement. [4x2=8]

UNIT – III

Q.3 (a) Explain JAVA interfaces and their purpose. [8]

(b) Write a program in JAVA to accept an array of strings from the keyboard and arrange them in alphabetical order. [8]

OR

Q.3 (a) How packages are defined in JAVA? How packages are imported in JAVA? Explain using an appropriate example. [8]

(b) Explain various string conversion methods in JAVA using an example. [8]

UNIT – IV

Q.4 (a) What do you mean by exception handling? How exception handling is done using try and catch statements. [8]

(b) Describe the usage of throw, throws and finally block using an appropriate example. [8]

OR

Q.4 (a) What is sequential Access text files in JAVA. Explain how these files are created and updated in JAVA using an example. [8]

(b) Write a program that shows that the order of catch blocks is important. If you try to catch a super class exception type before a sub class type, the compiler should generate errors. [8]

UNIT – V

Q.5 (a) Explain paint ( ) and repaint ( ) methods of the component class. [8]

(b) What are threads, why they are needed and how threads enable us to manage concurrent activities? rtuonline.com [8]

OR

Q.5 Define the following terns:-

i) Multi threading

ii) Interrupts

iii) Thread states

iv) Sleep and Join [4x4=16]