Third Semester MCA Degree Examination, Jun/July 2016
Programming Using Java

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1 a. Explain briefly three object oriented principles of Java.   **(06 Marks)**
   b. Explain the following :
       i) Type Casting   ii) Java's primitive Types   **(08 Marks)**
   c. Explain about Bitwise operators with example.   **(06 Marks)**

2 a. Explain about for –each style for loop with example.   **(04 Marks)**
   b. What is an array? How do you define single and double dimensional arrays in Java?
                                                                                   (06 Marks)
   c. What is the difference between a method and constructor? Explain constructor overloading
       and method overloading with an example program.   **(10 Marks)**

3 a. What is the difference between = = and equals( ) method?   **(04 Marks)**
   b. Explain any five methods present in string class to compare strings.   **(10 Marks)**
   c. Explain about static variable, static method and static block with example. **(06 Marks)**

4 a. Briefly discuss about varargs.   **(04 Marks)**
   b. How to call superclass constructors and superclass members using super? Explain with an
       example program.   **(10 Marks)**
   c. What is method overriding? How do you achieve runtime polymorphism in java? **(06 Marks)**

5 a. What are the multiple usages of final keyword in java?   **(06 Marks)**
   b. What are interfaces? How to implement multiple interfaces?   **(05 Marks)**
   c. What is the difference between abstract class and interface?   **(04 Marks)**
   d. Define Package. Explain the access protection for class members with respect to packages.
                                                                                   (05 Marks)

6 a. What is exception handling? How to define multiple catch blocks?   **(05 Marks)**
   b. What is synchronization? Explain how interthread communication can be achieved in
       multithreading with demo program.   **(10 Marks)**
   c. What is enumeration? Explain values ( ) and valueOf ( ) methods.   **(05 Marks)**

7 a. Explain about URLConnection class.   **(05 Marks)**
   b. What is Applet? Give a complete applet skeleton.   **(05 Marks)**
   c. What is Event delegation model? Write a program to handle the keyboard events. **(10 Marks)**

8   Write a short notes on the following :
   a. Collection Classes
   b. Autoboxing and Autounboxing
   c. Generic Classes
   d. JList and JTextField.   **(20 Marks)**

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