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13MCA32

Third Semester MCA Degree Examination, June/July 2017
Programming Using Java

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions.

1.
 - a. Explain the three key attributes of object oriented principles. (06 Marks)
 - b. Write a short note on: i) JVM ii) JDK. (04 Marks)
 - c. What are the primitive data types available in Java? (04 Marks)
 - d. What is type casting? Explain automatic type promotion in expressions with rules and demo program. (06 Marks)

2.
 - a. Explain the different types of iteration statements and jump statements with example. (10 Marks)
 - b. Explain the concept of default constructor and a parameterized constructor with an example. (06 Marks)
 - c. Explain the use of 'this' keyword with example. (04 Marks)

3.
 - a. Write a Java program to find the sum of array elements by using 'Enhanced for loop'. (04 Marks)
 - b. Explain the operations of left shift and right shift operators with example. (06 Marks)
 - c. Define a string. Explain any five methods present in a string class to compare strings. (10 Marks)

4.
 - a. Explain method overloading and constructor overloading with suitable example. (10 Marks)
 - b. What is dynamic method dispatch? (04 Marks)
 - c. Explain the following: i) Varargs; ii) Final keyword. (06 Marks)

5.
 - a. What are interfaces? What are their benefits? How to implement multiple interfaces in Java? (08 Marks)
 - b. Define a package. Explain the creation of a package using a suitable example. (08 Marks)
 - c. Explain about four types of access specifiers in Java. (04 Marks)

6.
 - a. What is an exception? Explain exception handling mechanism with proper example. (05 Marks)
 - b. How to define multiple catch blocks? (05 Marks)
 - c. What is synchronization? Explain how inter thread communication can be achieved in multithreading using producer and consumer problem. (10 Marks)

7.
 - a. Explain the following: i) Values() and valueof() methods; ii) Autoboxing and Autounboxing. (08 Marks)
 - b. What are generics? What is the importance of generics? Explain with example and give general form. (07 Marks)
 - c. What are applets? Give the complete applet skeleton. (05 Marks)

8.
 - Write a short note on:
 - a. Event delegation model
 - b. Two key features of swings
 - c. URL connection class
 - d. Linked list class. (20 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.