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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 violation of identification agreed to evaluator and/or equations written on 42-8-50 will be treated as malpractice.