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13MCA32

Third Semester MCA Degree Examination, June/July 2019
Programming using Java

Max. Marks:100

Note: Answer any FIVE full questions.

- 1 a. Explain Object Oriented Programming principles that can be implemented in java. (10 Marks)
b. Explain the logical operators in java. Write a program to demonstrate the short circuit operators. (10 Marks)
- 2 a. What is type conversion and casting? Explain automatic type promotion with a program and quote the rules. (10 Marks)
b. Define constructor and overloaded constructor. Using the same concepts, write a java program to find the volume of a box. (10 Marks)
- 3 a. What are irregular arrays and how to allocate memory during irregular array declaration? Write a java program that stores the number of passengers who ride an airport shuttle. If the shuttle runs 5 times a day during the week and twice a day on Saturday and Sunday. Display the trip information using irregular arrays. (10 Marks)
b. Explain equals(), charAt(), compareTo(), lastIndexOf() methods with a sample java program. (10 Marks)
- 4 a. What is varargs method and its rule, and how is it overloaded? Write a Java program to reveal the concept of varargs. (10 Marks)
b. What are the uses of 'super' keyword? Write a Java program to show the uses of super. (10 Marks)
- 5 a. What is an interface? What are their benefits? With the help of a Java program, explain the implementation of interface. (10 Marks)
b. Describe the features of package and various levels of access protections available for packages and their implications. (10 Marks)
- 6 a. What is exception handling? With a Java program explain the exception handling mechanism. (10 Marks)
b. Define multithreading. Explain: i) notify() and ii) wait() in thread communication with a sample Java program. (10 Marks)
- 7 a. What are applets? Explain different methods of applet with a sample Java program. (10 Marks)
b. What are generics? Write a program to show a generic class with two type parameters. (10 Marks)
- 8 a. What are swings and swing component class? Explain swing buttons with a sample Java program. (10 Marks)
b. What is InetAddress class? Demonstrate InetAddress by displaying the address and names of several websites. (10 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.