13MCA32

Third Semester MCA Degree Examination, June/July 2018
Programming using Java

Time: 3 hrs.   Max. Marks:100

Note: *Answer any FIVE full questions.*

1   a. What are the different primitive data types available in java? Explain each with declarations ranges and examples.   **(12 Marks)**
    b. Explain rules to be followed while creating an identifier. Also give some examples while explaining different kinds of literals.   **(08 Marks)**

2   a. What is a constructor? Explain different kinds of constructors with example code.   **(10 Marks)**
    b. What are different kinds of looping statements available in java? Explain with example code.   **(10 Marks)**

3   a. Explain how each bitwise operator works in java using code example.   **(10 Marks)**
    b. Write a java program to perform different operations on strings :
    i) length ii) uppercase iii) to find substring iv) to compare 2 strings v) to find if 2 strings are equal vi) to change to characteristics array.   **(10 Marks)**

4   a. Explain different kinds of access specifies available in java with code example.   **(08 Marks)**
    b. Explain how "super" keyword works for a variable and method in inheritance.   **(04 Marks)**
    c. Write a program to demonstrate inheritance in multi-level hierarchy.   **(08 Marks)**

5   a. Explain how access specifies work when used in packages.   **(10 Marks)**
    b. Explain how multiple interfaces are implemented in java. Also how is an interface reference used while coding. Explain with example.   **(10 Marks)**

6   a. Explain important keywords in exception handling. Explain with example how we can create our own exception class.   **(10 Marks)**
    b. What are the two ways in which you can create a thread? Explain by providing example for each.   **(10 Marks)**

7   a. Explain with code example, what is enumeration. Explain how constructors and methods can be crated inside it.   **(10 Marks)**
    b. Explain with code example, important methods of applets.   **(10 Marks)**

8   Write short notes on :
    a.   Layout managers
    b. Networking classes and interfaces
    c. Collection classes and interfaces
    d. Surings controls.   **(20 Marks)**

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