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MCS-024

MCA (Revised) / BCA (Revised)

Term-End Examination, 2019

MCS-024 : OBJECT ORIENTED TECHNOLOGIES AND JAVA PROGRAMMING

Time : Three Hours]   [Maximum Marks : 100
(Weightage 75%

Note : Question No. 1 is **Compulsory**. Attempt **any three** questions from the rest.

1.   (a)   Write a java program to read the contents of binary file and write it on the standard output. [10]

       (b)   What is purpose of Serialization of an object ? How does the volatile modifier to a data type affect serialization ?   [5]

       (c)   Justify "Java is secure and architectural neutral language".   [3]

       (d)   What are cookies and session objects ? Where do we use them ?   [5]

       (e)   Explain the concept of inheritance and polymorphism, with an example of each.   [7]

(f)   Differentiate between AWT and Swing Components.   [5]

(g)   What is the difference between notify( ) and notify All( ) method.   [5]

2.   (a)   What is exception ? What are causes of exception ? What can be done once an exception is caught ? Explain use of finally clause in exceptions handling, with the help of an example.

[10]

(b)   Differentiate between following :   [10]

    (i)   Public member and private member

    (ii)   Overloading and Overriding

    (iii)   Java application and Applet

    (iv)   FOR statement and WHILE statement

3.   (a)   What is Multithreading ? What is the advantage of multithreading in Java ?   [5]

(b)   What are Interfaces in Java ? What do you understand by 'implementing interfaces' ? Explain with the help of an example.   [7]

(c) What is JDBC ? What are the characteristics of JDBC ? Write a program to demonstrate how JDBC connection is established. [8]

4. (a) What is String in Java ? Explain any three constructors of String Class. Write a program in Java to find length of a given string and display the string in upper case. [10]

(b) What is servlet ? How servlet differs from Applet? Explain the lifecycle of Applet. [10]

5. (a) Write a Java program to create student class with data member student_name, roll-number and Marks. Define appropriate constructor in the program. Create array of ten student objects. Also display the name and rollnumber of the student with highest marks (in the array created). [10]

(b) What is RMI ? Explain RMI architecture with suitable diagram. [5]

(c) What are Java Beans ? Discuss the utility of Java Beans. Explain the features of Java Beans. [5]

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