MCS-024

MASTER OF COMPUER APPLICATIONS (MCA) (REVISED)/ BACHELOR OF COMPUTER APPLICATIONS B.C.A. (REVISED)

Term-End Examination

June, 2023

MCS-024 : OBJECT ORIENTED TECHNOLOGIES AND JAVA PROGRAMMING

Time : 3 Hours   *Maximum Marks : 100*

Weightage : 75%

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

1. (a) Explain the basic features of object oriented programming language.   5

   (b) Why is Java called machine independent language ? Explain the functionality of JVM.   5

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(c) Differentiate between constructor and method, give example for both.   5

(d) What is an abstract class ? Explain the use of abstract class with an example.   5

(e) What are cookies and session variables ? Briefly discuss the utility of both.   5

(f) Explain the different steps in the life cycle of an applet.   5

(g) Discuss the relationship between data abstraction and encapsulation.   5

(h) Explain the usage of container in Java Applet and Servlet.   5

2. (a) Explain how exception handling is performed in Java. Briefly discuss the concept of checked exception and unchecked exception, with an example of each.   10

(b) Briefly discuss the concept of listener in Java. Write a program in java to implement mouse motion listener, support your program with suitable comments.   10

3. (a) What is string class ? How is it different from String Buffer class ? Write a java program to find the length of a given string. 7

   (b) What is servlet ? Explain how session handling is performed in servlet programming. 7

   (c) What is an Interface ? Write a java program to show how a class implements two interfaces. 6

4. (a) What is RMI in Java ? Write the steps to create stub and skeleton. 7

   (b) Write a java program to create a volume class. Derive cube and sphere classes from it. Define constructor for these three classes. 7

   (c) What is Synchronization ? Explain how methods are synchronized in Java, with the help of an example. 6

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5. Write short notes on the following : 5×4=20

(a) Dynamic Binding

(b) Stream Tokenizer

(c) JDBC Drivers

(d) Function Overloading