MCS–024

MASTER OF COMPUTER APPLICATIONS/BACHELOR OF COMPUTER APPLICATIONS (REVISED) (MCA/BCA)
Term-End Examination
June, 2025

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 from the remaining questions.*

1. (a) Explain the concept of abstraction with an example. 5

   (b) Discuss the concept of superclass and subclass with examples in Java. 5

(c) What are JVM, JRE and JDK ? Explain the differences among them. 5

(d) Explain the concept of exception handling with an example. 5

(e) Can we treat threads as light weight processes ? Explain. 5

(f) Explain the concept of serialization with an example. 5

(g) Compare the SWING environment with AWT environment for GUI development in Java. 5

(h) What is JDBC-ODBC connectivity ? What purpose does it serve in Java programming environment ? 5

2. (a) Explain the purpose of different types of access specifiers in Java with a suitable example. 10

(b) What is overriding of methods in Java ? Explain by overriding a method in a class in Java program. 10

3. (a) How does package help a Java program ? What are its advantages ? What is the name of default package in JDK ? 10

(b) What are default methods in an interface ? How do interfaces assist Java classes ? 10

4. (a) Explain the interthread communication process. What methods and which package in JDK assist a programmer for the same ? 10

(b) How is byte stream class different from character stream class in file I/O ? How does buffering help during I/O from disk ?

10

5. Write short notes on any *four* of the following : 4×5=20

   (a) Set interface and any two classes that implement set interface

   (b) LayoutManager classes

   (c) Event handling in Java

   (d) JDBC transactions

   (e) Benefits of OOP

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