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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

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- (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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