

No. of Printed Pages : 5

MCS-024

**MASTER OF COMPUTER
APPLICATIONS/BACHELOR OF
COMPUTER APPLICATIONS
(MCA/BCA) (REVISED)**

Term-End Examination

June, 2026

**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) Compare structured programming and object oriented programming. 5
- (b) Briefly discuss multiple inheritance, with suitable example. 5
- (c) What is method overloading ? How is it related to polymorphism ? 5
- (d) How does application program in Java differs from applet ? 5
- (e) Why is main() always static in any application program of Java ? 5
- (f) Discuss the working of Ternary operator with a suitable example. 5
- (g) What is Data Abstraction ? How is it related to encapsulation ? 5

- (h) Expand the term RMI and RPC, how does RMI relate to RPC ? Explain. 5
2. (a) What is an interface ? How do interfaces differ from abstract classes ? Also, write the similarity between interface and abstract classes. Write a program in Java to show how a class implements two interfaces. 10
- (b) What is object serialization ? Explain the working of object serialization. Also discuss the role of transient keyword and volatile modifier in achieving serialization. 10
3. (a) What is polymorphism ? Explain, how the concept of polymorphism is

implemented in Java, under the following conditions : $2 \times 5 = 10$

- (i) When classes are linked by hierarchy.
- (ii) When classes are not linked by hierarchy.

(b) Differentiate between the following :

$2 \times 5 = 10$

- (i) StreamSocket and Datagram-Socket
- (ii) Proxy Servers and Anonymous Proxy Servers

4. (a) What is JDBC ? Briefly discuss the different types of JDBC drivers. 5

- (b) How are threads created by implementing Runnable interface ? Explain. What is thread priority ? 5

- (c) What are checked exceptions ? How do they differ from unchecked exceptions ?

5

- (d) What is a Streamtokenizer ? Briefly discuss its utility.

5

5. Write short notes on the following : $4 \times 5 = 20$

- (a) Dynamic Binding and its advantages
- (b) Role of cookies in session handling
- (c) Life cycle of an applet
- (d) Multi-level Inheritance

x x x x x