

MSc/IMSc (CA & IT) Sem.-5 Examination

Object Oriented Programming with Java

Time : 2-30 Hours]

December-2025

[Max. Marks : 70

Q – 1. Answer the following Question.

- a. Explain features of Java. [7]
 b. Differentiate between Java and C++ [7]

[OR]

- a. What are classes and objects in Java? Explain the process of garbage collection in [7]
 b. What are static methods? Can the static methods be overridden? Why is the main method static in Java? [7]

Q – 2. Answer the following Question.

- a. Define array. How to declare array in Java? Explain the different types of arrays supported in Java. [7]
 b. What is exception ? Explain exception handling mechanism [7]

[OR]

- c. Differentiate String and the StringBuilder classes [7]
 d. Differences between JDK, JRE and JVM [7]

Q – 3. Answer the following question.

- a. What is an interface? Differentiate between interface and abstract class. [7]
 b. Explain importance of Constructor. Discuss the overloading of methods and constructors with suitable example. [7]

[OR]

- a. What is abstract class? Explain when class can be made abstract. [7]
 b. Discuss method overriding and method overloading which are implemented in Java? [7]

Q – 4. Answer the following question.

- a. What is Thread ? Explain Thread Synchronization with example. [7]
 b. What is wrapper classes in Java. Explain boxing, unboxing and autoboxing using java program code. [7]

[OR]

- a. Give a list of available wrapper classes and explain any two in detail. [7]
 b. Explain Thread Life Cycle. [7]

Q – 5 Answer the following question.

- a. What are the two types of polymorphism? Demonstrate use of method overriding using suitable example [7]
 b. Differences between JDK, JRE and JVM [7]

[OR]

- c. What is Generic class? Explain it with bounded type parameter. [7]
 d. What is Applet ? Explain Life Cycle of Applet with example [7]