

Seat No. : _____

AI-102

April-2025

Int. M.Sc. (CA & IT), Sem.-IV

Core Java (OOPJ)

Time : 2:00 Hours]

[Max. Marks : 50

1. (A) Answer the following : 5
- (i) What is ByteCode ?
 - (ii) What is Super ?
 - (iii) What is this ?
 - (iv) What is serialization ?
 - (v) What is Repaint() Method ?
- (B) Explain the features of Java in detail. Emphasis on why Java is platform independent ? 5
2. Answer the following :
- (A) List the various elements that can be defined within a Java class. Briefly explain each. 5
- (B) Explain importance of Constructor. Discuss the overloading of methods and constructors with suitable example. 5
- OR**
- (A) What is abstract class ? Explain when class can be made abstract. 5
- (B) Discuss method overriding and method overloading which are implemented in Java. 5
3. Answer the following :
- (A) What is interface ? How does it overcome the problem of Java's multiple inheritance ? 5
- (B) What is a **custom exception** in Java and write a Java program to create a **user-defined exception** InvalidAgeException that is thrown if age is less than 18. 5
- OR**
- (A) What is Exception Handling ? Explain the use of "throw", "throws", "catch", "finally" keywords with Java code. 5
- (B) Explain all available access specifiers associated with members of a class using inheritance in Java. 5

4. Answer the following :
- (A) What is Thread ? Explain Thread Synchronization with example. **5**
 - (B) What is the purpose of package and import statements ? Explain using suitable example. **5**

OR

- (A) What is Stream ? Explain in brief the types of Stream. **5**
 - (B) Explain Life Cycle of Thread. Specify some important methods of Thread class. **5**
5. Answer the following : (Any **two**)
- (A) What is Applet ? Explain Life Cycle of Applet with example. **5**
 - (B) What is Generic class ? Explain it with bounded type parameter. **5**
 - (C) Explain Delegation Event Handling Model. **5**
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