

End Semester/Reappear (Semester II) Examination May 2025
Programme: MCA
Course: Java Programming
Course Code:3CIT105
Enrolment no. _____
Full Marks: 70
Time: 3 Hrs.

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
Section I				
1	Short Answer type questions.			
a	Explain any two features of Java that make it a widely used programming language.	CO1	Remember	4 x 5 = 20
	or			
b	Why Java is called platform independent and Java programs are considered as “Write Once, Run anywhere”?	CO1	Understand	
	or			
c	Compare method overriding and method overloading in Java.	CO2	Understand	
	or			
d	Define abstract class. How an abstract class is different from a normal class?	CO2	Remember	
	or			
e	What is multithreading and explain how a thread moves to dead state?	CO2	Remember	
	or			
f	Describe thread synchronization in Java.	CO2	Remember	
	or			
g	Explain the difference between AWT and Swing components.	CO4	Understand	
	or			
	Write a Java program using Swing to create a simple JFrame with a JButton component.	CO4	Apply	
Section II				
	Long Answer type questions.			
2	Write the usage of ‘interface’ keyword in Java. Write the syntax to declare interface. Explain the concept of interface with a program.	CO3	Understand	3 x 10 = 30
	or			
3	Write a java program that demonstrates the use of arrays and control structures (such as loops) to find the smallest element in an array of integers.	CO3	Understand	
	or			
4	Describe the lifecycle of a thread in Java. Write a simple program to create and start a thread, and explain how the thread moves through its lifecycle stages.	CO2	Analyze	
	or			
5	How the thread priority can be set? Explain with proper example.	CO2	Apply	
	or			
6	Explain Layout and Component Manager with its need in Java Program. What are different types of layout managers available in java AWT?	CO4	Understand	
	or			
	Write a swing program to create a Label in a frame.	CO4	Apply	
Section III				
	Application based questions			
5	Create a Java application that effectively manages user input errors using exception handling. The program should continuously prompt the user to enter an integer, gracefully handling any input mismatches until a valid integer is provided.	CO2	Create	1 x 20 = 20
	or			
	Elaborate on the concepts of inheritance and polymorphism in Java, highlighting their significance in object-oriented programming. Implement a Java program that demonstrates these principles using a base class and multiple derived classes.	CO2	Evaluate	

COURSE OUTCOME

CO1. Identify classes, objects, members of a class and relationships among them needed for a specific problem.

CO2. Understand, Write, compile and execute Java programs using object oriented class structures with parameters, constructors, and utility and calculations methods, including inheritance, test classes and exception handling.

CO3. Evaluate user requirements for software functionality required to decide whether the Java programming language can meet user requirements

CO4. Apply JDBC to provide a program level interface for communicating with database using java programming language to solve the given problem that include GUIs and event driven programming.