JHARKHAND Rai University
RANCHI

End Semester/Reappear (Semester II) Examination May 2025

Programme: BCA
Course: Object Oriented Programming Using Java **Full Marks: 70**
Course Code:3CCC104 **Time: 3 Hrs.**
Enrolment no. _____

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
	Section I			
1	**Short Answer type questions.**			**4 x 5 = 20**
a	Explain the concept of type casting in Java with an example.	CO1	Remember	
	or			
	Write a simple Java program that will swap two numbers without using third variable.	CO1	Apply	
b	Define abstract class. How an abstract class is different from a normal class?	CO2	Remember	
	or			
	What is wrapper class and what is its significance?	CO2	Remember	
c	Define exception in Java. Name five in-built exceptions.	CO3	Understand	
	or			
	What is multithreading in Java? How thread is different from process?	CO3	Understand	
d	Explain the difference between AWT and Swing components.	CO4	Understand	
	or			
	Briefly explain Flow Layout, Grid Layout and Border Layout manager in java.	CO4	Understand	
	Section II			
	Long Answer type questions.			**3 x 10 = 30**
2	Explain the role of Java Virtual Machine in Java Program. Explain its components with a diagram.	CO1	Understand	
	or			
	Explain the structure of a basic Java program, including its main components. Write a simple Java program that prints "Hello, Universe!" and describe each part of the program.	CO1	Apply	
3	How the thread priority can be set? Explain with proper example.	CO3	Understand	
	or			
	Describe the lifecycle of a thread with a proper diagram in Java.	CO3	Understand	
4	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 button in a frame.	CO4	Apply	
	Section III			
	Application based questions			**1 x 20 = 20**
5	Define a class in Java named Employee with variables for storing an employee's name, designation, and salary. Add methods to calculate the annual salary, and to display the employee's details. Write a Java program to create an object of the Employee class, input the employee's details, and display the calculated annual salary and employee details.	CO2	Create	
	or			
	Explain the concept of loop control statements in Java, including break and continue. Write a Java program that uses a for loop to print numbers from 1 to 50, but skips multiples of 7 and stops the loop if the number is greater than 45.	CO2	Apply	

COURSE OUTCOME

After the successful completion of the course, the students will be able to:

CO1. Use the syntax and semantics of java programming language and basic concepts of OOP.
CO2. Develop reusable programs using the concepts of inheritance, polymorphism, interfaces and packages.
CO3. Apply the concepts of Multithreading and Exception handling to develop efficient and error free codes.
CO4. Design event driven GUI and web related applications which mimic the real word scenarios.