

**Department of Computer Science****Warning:**

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENT(S) BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**
3. **CHECK YOUR LMS COURSE PAGE UNDER MY COURSES. AFTER CONFIRMATION OF YOUR ADMISSION, CONTACT YOUR REGION TO GET YOUR LMS USERNAME AND PASSWORD.**

Level :	BS	Semester:	Spring 2026
Subject/Course Code:	Object Oriented Programming(CS3004)	Total Marks:	100
Maximum Time :	03 Hours	Pass Marks:	50
Medium of Instructions:	English		

Assignment-1

Instructions: You must answer the questions in your own words. Copying from books is not allowed.

Q.No.	Questions	Marks
1.	Write a Java program that accepts the marks of five subjects from the user, calculates the total marks, percentage, and grade using an if-else-if ladder, and includes appropriate comments to explain different parts of the program.	20
2	Write a Java program that stores 10 integer values in an array, finds the largest and smallest values, calculates the average, and searches for a user-specified number to determine whether it exists in the array.	20
3	Write a Java program that accepts an integer from the user and displays its multiplication table from 1 to 10 using both a while loop and a for loop.	20
4	Write a Java program that accepts two 3×3 matrices from the user, performs matrix addition using nested loops, and displays the resulting matrix in a readable format.	20

5	Write a Java program that repeatedly accepts integers until the user enters 0. For each number, determine whether it is even or odd, maintain separate counts of positive and negative numbers, skip processing when the user enters 100 using the continue statement, and terminate the program immediately if the user enters -999 using the break statement.	20
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Assignment-2

Instructions: You must answer the questions in your own words. Copying from books is not allowed.

Q.No.	Questions	Marks
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1.	Design and implement a Java class named Employee with private data members for employee ID, name, and salary, along with appropriate constructors, getter and setter methods, and a display method. Create objects for at least three employees and display their details.	20
2	Create a Java program that demonstrates inheritance and polymorphism by defining a superclass named Vehicle and two subclasses named Car and Motorcycle. Override a common method in the subclasses and use dynamic method binding to invoke the appropriate method through a superclass reference.	20
3	Write a Java program that accepts two integers from the user, performs division, and handles possible exceptions using try-catch blocks, including ArithmeticException for division by zero and InputMismatchException for invalid input.	20
4	Write a Java program that accepts a string from the user and performs various string operations, including finding its length, converting it to uppercase and lowercase, reversing the string, comparing it with another user-entered string, and determining whether it is a palindrome.	20
5	Develop a Java Swing application that contains a JLabel, JTextField, JRadioButton, JCheckBox, and JButton using an appropriate layout manager. Implement event handling so that when the button is clicked, the application displays the entered name, the selected gender, and whether the user has accepted the terms and conditions.	20