DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

V SEMESTER (Oct-Jan-2025)

Advanced Java Programming Laboratory-CSL57

**I.A. Marks: 50 Exam Hours: 03**

**Credits: 0:0:1 Exam Marks: 50**

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| **SL.**  **No.** | **QUESTIONS** | **CO** |
| 1. | a. Write a java program that connects to the Employee (ID, FName. LName, Project, Salary) database using JDBC and perform the following operations.   1. Display details of all the Employees. 2. Display details of all the employees who work for project “Web Development”. | CO1 |
| b. Write a Servlet program that reads following information -> Employee’s name, number of hours worked in week, hourly pay rate, tax (20%) from the user and prints a payroll statement with employee’s details. | CO2 |
| 2. | 1. Write a java program that connects to a Department (Dept\_ID, Name, Year\_Established, Head\_Name, No\_of\_Employees) database using JDBC and perform the following.    1. Insert a new row using Prepared Statement object.    2. Display the details. | CO1 |
| b. Write a JSP program that reads eleven number from user, computes their average, and finds out how many numbers are below average and displays duplicate numbers. | CO3 |
| 3. | 1. Write a java program that connects to the Movies (ID, Movie\_Name, Genre, IMDB\_Rating, Year) database using JDBC. Create an Updatable Result Set and perform the following operations.    1. Display details of all the Movies from the table.    2. Display details of 5th Movie from the table. | CO1 |
| b. Write a Servlet program to accept the User Name, Gender and Age and display whether he/she eligible for vote. | CO2 |
| 4. | a. Write a JAVA-JDBC Program to create a database to store country details namely, country\_code, capital, continent, population and display at least 5 country details in ascending order of their population in a table format. | CO1 |
| b. Write a JSP program to check if number is an Armstrong number of not. (Example:  153 = 13 +53 +33 ) | CO3 |
| 5. | 1. Write a java program that connects to a Bank\_Account (Account\_No, Account\_Name, Type\_of\_Account, Balance) table using JDBC and perform the following.    1. Insert rows using Prepared Statement.    2. Display details of all the Accounts. | CO1 |
| b. Write a java servlet program to implement a webpage to check if the voter is eligible or not. User will enter his first name, last name, email id and date of birth. Check if  he is eligible to vote or not. Validate the page before displaying the details. | CO2 |

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| 6. | a. Write a JAVA-JDBC program to create Employee details and update the designation of an employee from Asst. Prof to Asoc. Prof | CO1 |
| b. Write a java servlet program to calculate the CGPA. Read the USN, Name, SGPA of previous 4 semesters from user in an HTML page. Calculate the CGPA and display the details using a Servlet class. | CO2 |
| 7. | a. Write a JAVA-JDBC program to insert and display the employee database information whose salary is above Rs. 50,000 in a table format. | CO1 |
| b. Write a JSP program to read employee details. Raise the salary by 10% whose salary is < 20,000. Display the employee details along with updated salary. | CO3 |
| 8. | a. Write a JAVA-JDBC program to insert and display the student information from the database Update the grade from 'A' to 'S' where student name = "Ram" using prepared statement. | CO1 |
| b. Write a java servlet program to create 4 cookies. Set 2 cookies with 1 minute of expiry date. Display all the cookies when the servlet is loaded for the first time. Refresh the page  and display the remaining 2 cookies. | CO2 |
| 9. | 1. Create a database called ‘Registration’ and a table called ‘student’ with fields Roll-No., Name, Program, Year-of-Admission. Write a JAVA-JDBC program to    1. List the name and roll number of all the students who are enrolled in year 2023.    2. List the Roll-No and Name of all the students of BE Program. | CO1 |
| b. Write a JSP program to accept the 5 subject marks entered and display his/her grade to the browser. Department has set the grade for the subject Java as follows: Above 90=S, 80-89=A, 70-79=B, 60-69=C, 50-59=D, Below 50=FAIL. | CO3 |
| 10. | a. Read student name, USN branch, CET or COMED\_K from the user and store it in database. Write a JAVA-JDBC program to extract the students who are admitted through CET and branch is CSE, display the result in a proper format. | CO1 |
| 1. Write a JSP program that takes the user’s name and age from a form. Echo back the name and age along with a message stating the price of movie tickets. The price is determined by the age passed to the JSP.    * If the age is greater than 62, the movie ticket price is Rs. 50.    * If the user is less than 10 years old, the price is Rs. 30.    * For everyone else, the price is Rs. 80. | CO3 |

**Note: Student is required to answer one full question which contains PART-(a) and PART-(b). The questions are allotted based on lots.**

**Marks Distribution:**

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| **Conduction and Result** | **Write-Up** | **Execution (35)** | | **Viva/Demo** | **Change of Program** | **Total** |
| **8** | **Part-(a)** | **Part-(b)** | **7** | **-10 Marks** | **50 Marks** |
| **20** | **15** |