DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

V SEMESTER (Oct-Jan 2024-25)
Advanced Java Programming Laboratory-CSL57

I.A. Marks: 50   **Exam Hours: 03**
Credits: 0:0:1   **Exam Marks: 50**

SL. No.	QUESTIONS	CO
1.	a. 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. i. Display details of all the Departments using Statement Object. ii. Display details of all the Departments which are established in the year 2000 using PreparedStatement object. iii. Display details of all the Departments by reading Dept_ID and Department_Name from the user using PreparedStatement object. iv. Insert a new row using PreparedStatement object. Display the details.	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 statement of payroll with employee's details.	CO2
2.	a. Write a java program that connects to the Movies (ID, Movie_Name, Genre, IMDB_Rating, Year) database using JDBC. Create an Updatable ResultSet and perform the following operations. i. Display details of all the Movies from the table. ii. Display details of 5th Movie from the table. iii. Insert a new row into the table using PreparedStatement and display all the details. iv. Delete a row from the table where the IMDB_Rating is less than 5. v. Update the Genre of a movie with ID as 10 to "Sci-fi".	CO1
	b. Create and store three cookies with different attributes (such as name, value, expiration time, etc.). Retrieve and display the stored cookies using a second JSP program, extracting their names, values, and any additional attributes	CO3
3.	a. 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. i. Insert rows using PreparedStatement. ii. Display details of all the Accounts. iii. Demonstrate the Working of Rollback and Commit. iv. Demonstrate the Working of SavePoints.	CO1
	b. Write a Java Servlet Program to implement a simple calculator. Validate the input data and display appropriate messages.	CO2

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CALCULATOR PROGRAM

First Number : [   ]

Second Number: [   ]

○ Addition
○ Subtraction
○ Multiplication
○ Division
○ e^x

[Submit]

4.	a. Write a java 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
	c. Write a JSP program to retrieve and display Student Information. Create an `index.html` page to collect the **USN** (University Serial Number) of the student from the user. In displayData.jsp, connect to the database, and retrieve the student details based on the USN entered by the user. If the **USN** exists in the database, display the corresponding `USN` and `Name`. If the **USN** does not exist, display the message: **"Invalid USN"**.	CO3
5.	a. Write a java program that connects to the Subject (Code, Name, Department, Credits) database using JDBC. Create an Updatable ResultSet and perform the following operations. i. Update the Name of the subject from "Java Programming Lab" to "Advanced Java Programming Lab" with Code as CSL56. ii. Delete the subject "System Programming" from the table. Use PreparedStatement Object. iii. Display details of all the Subjects.	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

Voting Page

First Name:
[   ]
Last Name:
[   ]
E-Mail ID:
[   ]
Date of Birth:
[mm / dd / yyyy]
[Submit]

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6.	a. Write a java program to create Employee details and update the designation of an employee from Assistant Professor to Associate Professor. (Consider Employee Database with Employee name, designation, dept and salary)	CO1
	b. Write a Java Servlet program that loads area and phone no. of police station of that area from a database. It takes area or phone number as input and prints the details in a separate page. Create police_station table with appropriate fields.	CO2
7.	a. Write a java program that connects to the database College with Student table. Assume appropriate attributes for the Student table. Write a program to display the details of those Students who have CGPA less than 9. Also update the Student table to change the CGPA of student named "John" from 8.50 to 9.4 using updatable result set. Finally display the results and disconnect from the database	CO1
	b. Write a JSP program to create a form with Book_No, Title, Author, Publication, Price and a Submit button. Using JSP-Database connectivity, get the data from the form and insert the records into the database. Retrieve the book details for the particular title and display the details.	CO3
8.	a. Write a java 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. (Consider Student Database with student name, usn, sem, course and grade)	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.	a. Create a database called 'Registration' and a table called 'student' with fields Roll-No., Name, Program and Year-of-Admission. Write a java program to (i) List the name and roll number of all the students who are enrolled in year 2023. (ii) List the Roll-No and Name of all the students of BE Program.	CO1
	b. Write a Java Servlet Program to display how many times a visitor is visiting the webpage using session object. If the user is visiting for the first time, display Welcome message, else display the number of times he is visiting the page.	CO2
10.	a. Read student name, USN branch, CET or COMED_K from the user and store it in database. Write a java program to extract the students who are admitted through CET and branch is CSE, display the result in a proper format.	CO1
	b. 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
11.	a. Write a java program to insert and display the employee database information whose salary is above Rs. 50,000 in a table format. (Consider Employee Database with Employee name, designation, Dept and salary)	CO1
	b. Write a servlet program that uses JDBC to display the subjects allotted for the faculty. Subjects Table should have Sub_ID, Sub_Name and Faculty_ID as the fields. Update subject details for a faculty and display how many rows are updated.	CO2
12.	a. Develop a Java program using JDBC to execute the following operations on an Employee table: i. Delete records of employees working on a project specified by the user. ii. Retrieve and display details of all employees sorted by their salary in descending order.	CO1

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	b. Develop a JSP application that has the following pages. The index page register.html contains 2 text boxes for entering username and password. Provide a button "Register". Once the Register button is clicked the page should be redirected to welcome.jsp. In welcome.jsp validate username and password and display welcome message for a valid user (**Use Sessions**).	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:

Conduction and Result	Write-Up	Execution (35)		Viva/Demo	Change of Program	Total
		Part-(a)	Part-(b)			
	8	**18**	**17**	**7**	**-10 Marks**	**50 Marks**

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