

Date: 10/11/2025

Full Stack Development (CSE304) Practical Exam Paper 1

Question 1:

[CO-1, CO-2, CO-3] 20 Marks

A productivity firm wants an interactive web-based task manager for daily planning.

Problem Statement: Develop a To-do List app in ReactJS to manage tasks dynamically without a database.

Requirements:

- Include input field and Add button to create tasks.
- Display all tasks in a list with 'mark as completed' and 'delete' options.
- Visually differentiate completed tasks.
- Show total number of pending tasks.
- Use React Hooks (useState/useEffect) for state updates.
- Provide clean, responsive layout and basic task filtering (All/Completed/Pending).

Question 2:

[CO-4, CO-5] 20 Marks

An educational portal needs a simple arithmetic calculator for their website.

Problem Statement: Build a NodeJS + ExpressJS calculator API that performs basic arithmetic operations.

Requirements:

- Accept two numbers and an operation type via HTML form or API.
- Validate inputs on both client and server sides.
- Perform add, subtract, multiply, and divide operations.
- Handle invalid inputs and division by zero gracefully.
- Use Express routes and modular coding.
- Return result dynamically with proper error messages.