Task Management System:

Objective

Build a full-stack Task Management application using MERN stack.

Section 1: Backend Development (25 Marks)

Create REST APIs using Node.js, Express, MongoDB.

Task Model

Fields:

title (String, required)

description (String)

status (pending/completed)

createdBy (String)

createdAt (Date)

Required APIs

POST   /api/auth/register

POST   /api/auth/login

POST   /api/tasks

GET   /api/tasks

PUT   /api/tasks/:id

DELETE /api/tasks/:id

Requirements:

• Use Express Router
• Use MongoDB and Mongoose
• Proper error handling
• Use JWT authentication
• Protect task routes

Section 2: Frontend Development (25 Marks)

Create React application.

Required Pages:

• Register page
• Login page
• Dashboard page

Dashboard must allow:

• View all tasks
• Create task
• Update task status
• Delete task

Requirements:

• useState
• useEffect
• Axios or Fetch
• Proper component structure

Section 3: Integration and Authentication (20 Marks)

Students must:

• Connect frontend with backend
• Store JWT token
• Access protected routes
• Display logged-in user tasks

Section 4: Advanced Feature (15 Marks)

Implement ANY ONE:

• Filter tasks by status
OR
• Edit task
OR
• Logout functionality

Section 5: GitHub and Code Quality (15 Marks)

Students must:

• Push code to GitHub
• Proper folder structure

- Clean readable code
- Proper naming conventions