



**Model Paper - 2 B. C. A. (Regular)**

**Subject: Fundamentals of Full Stack Web Development**

**Marks: 25**

**Semester: 6<sup>th</sup> Semester**

**Academic Year: 2025-26**

**Seat No:**

**Q-1(A) Multiple Choice Questions.(Any 4)**

**[4 marks]**

1. Which guard executes when navigating away from a component?  
(A) CanLoad  
(B) CanDeactivate  
(C) CanActivate  
(D) Resolve
2. Which syntax defines a lazy-loaded route for AdminModule?  
(A) { path:'admin', load:AdminModule }  
(B) { path:'admin', loadChildren:()=>import('./admin/admin.module') .then(m=>m.AdminModule) }  
(C) { path:'admin', component:AdminModule }  
(D) {path:'admin', module:'AdminModule' }
3. Query parameters are added to a URL using:  
(A) @ (B) & (C) ? (D) #
4. Angular communicates with Express APIs using:  
(A) Pipes (B) Services (HTTPClient)  
(C) Direct database calls (D) Components
5. To create a React app using Vite, you use:  
(A) vite create react (B) npm create vite@latest  
(C) create vite-app (D) vite-init react

**Q-1 (B) Answer in Short(Any 4)**

**[4 marks]**

1. Which hook is used for side effects in React?
2. Which HTTP method is used to update an existing resource?
3. What type of data does res.json() send?
4. What is a "Dumb Component"?
5. What is the purpose of a custom validator?

**Q-2 (A) Discuss how routes are connected to controller logic in Express.js. Include an example with separate files.**

**[5 marks]**

**OR**

- (A)** Describe in detail how Firestore integrates with Angular or React applications for real-time data.

**Q-2 (B) Explain in detail how to structure backend code using models, services, and controllers, with examples**

**[4 marks]**

**Q-3 (A) Answer the Following (Any 2)**

**[8 marks]**

1. Write short notes on Firestore collections and subcollections.
2. What is a Route Guard? Explain CanActivate and CanDeactivate with examples.
3. Write a note on route parameters and query parameters in Express.js with suitable examples.