

Total No. of Questions : 8]

SEAT No. :

**P491**

**[6003]-712**

[Total No. of Pages : 2

**T.E.I.T.**

**WEB APPLICATION DEVELOPMENT  
(2019 Pattern) (Semester -II) (414464A)**

*Time :2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) *Answer four questions.*
- 2) *Figures to right indicate full marks.*
- 3) *Assume suitable data, if necessary.*
- 4) *Neat diagram must be drawn wherever necessary.*

- Q1)** a) Explain MVC architecture with a suitable diagram. [6]  
b) List and explain different types of structural directives in Angular. [6]  
c) What way would you design simple application in typescript to demonstrate the use of modules? [6]

**OR**

- Q2)** a) List and explain the features of any three popular web frameworks. [6]  
b) How would you use the term typescript? Give the advantages and disadvantages of using it? [6]  
c) Explain any 2 Hooks in React JS with example. [6]

- Q3)** a) Write and explain a simple application using REST HTTP Method API in node JS. [6]  
b) Explain how to perform CRUD operations in a Node JS application. Provide examples of CRUD implementation. [6]  
c) Write a short note on PM2 microservices. [5]

**OR**

- Q4)** a) What is template engine? How to create and use it using Express.JS?[6]  
b) List and explain the features of advanced MongoDB. [6]  
c) Explain the role of NPM (Node Package Manager) in Node.js development. [5]

**P.T.O.**

- Q5)** a) What is jQuery Mobile? Explain Mobile jQuery framework in detail. [6]  
b) Explain the mobile devices and desktop devices in detail ? [6]  
c) Write a code to create a header and footer in jQuery Mobile. [6]

OR

- Q6)** a) Explain any 3 events in jQuery Mobile with example? [6]  
b) Compare jQuery with jQuery Mobile. [6]  
c) Explain the concept of Mobile-First design in web development. Explain its significance and benefits in creating responsive and user-friendly websites. [6]
- Q7)** a) Explain the features and benefits of AWS Cloud. [6]  
b) What is S3 bucket and how to create a bucket? [6]  
c) Explain the different components of VPC? [5]

OR

- Q8)** a) What is PuTTY? How to connect EC2 instance with PuTTY? [6]  
b) Explain the process of deploying a website or web application on AWS. [6]  
c) What is Elastic Load Balancer and explain its working. [5]

§ § §