

Total No. of Questions : 8]

SEAT No. :

**P827**

**[5870]-1150**

[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 Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

- Q1)** a) What is MVC? Explain MVC architecture in detail. [6]  
b) Explain event binding and property binding in angular with example. [6]  
c) Explain different types of Hooks in ReactJS. [6]

OR

- Q2)** a) What is TypeScript? List advantages & disadvantages of using it. [6]  
b) What is Pipe? Explain with example. [6]  
c) Explain Redux - Architecture in detail. [6]

- Q3)** a) Explain ExpressJS as middleware with example. [5]  
b) What is NoSQL? Explain different features of MongoDB. [6]  
c) Explain callbacks in NodeJS with suitable example. [6]

OR

- Q4)** a) Explain concept of routes in express with example. [5]  
b) Write code to create collection, insert data & delete data in MongoDB using NodeJS. [6]  
c) Explain NodeJS events with example. [6]

*P.T.O.*

- Q5)** a) What is Mobile-First and Mobile Web? List different Mobile Devices. [6]  
b) What is jQuery Mobile? Explain Mobile jQuery Framework in detail. [6]  
c) Explain any 3 events in jQuery Mobile with example? [6]

OR

- Q6)** a) Compare jQuery with jQuery Mobile. [6]  
b) What is jQuery Mobile? What are the advantages and disadvantages of jQuery Mobile? [6]  
c) Write a code to create a header and footer in jQuery Mobile. [6]

- Q7)** a) Explain in detail types of Elastic Load Balancer. [6]  
b) What are the different components of VPC? [5]  
c) What is elastic beanstalk and enlist the advantages of using it? [6]

OR

- Q8)** a) Explain any three AWS Storage services. [6]  
b) What is Elastic Load Balancer and explain its working. [5]  
c) What is AWS cloud? List different services provided by it. [6]

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