

Note:

1. All questions are compulsory with internal choice.
2. Draw neat diagrams wherever necessary.
3. Figures to the right indicate full marks.

Q.1 Answer the following (any four) (20)

- (a) Explain event loop in NodeJs.
- (b) How to search document in MongoDB using find() and findOne() function.
- (c) Explain normalized data model with suitable example.
- (d) Explain routing in NodeJs.
- (e) Explain HTTP module in NodeJs.
- (f) How to update document in MongoDB using updateOne() and updateMany() function.

Q.2 Answer the following (any four) (20)

- (a) Explain features of AngularJs.
- (b) Explain following AngularJs directive with examples.
a) ng-app b) ng-init c) ng-bind d) ng-show
- (c) Explain the get() and post() method of REST API in ExpressJs.
- (d) Write a program to create and implement addition module using controller in AngularJs.
- (e) What is controller and \$scope in AngularJS? Explain with suitable examples.
- (f) Explain data binding in AngularJs.

Q.3 Answer the following (any four) (20)

- (a) Explain class getter and setter in dart programming with suitable example.
- (b) Explain control structures/decision making statements in dart programming.
- (c) Define function in dart programming. How to create function and return expression of function in dart programming.
- (d) Explain stateful and stateless widgets in flutter.
- (e) What is widget in flutter? Explain scaffold widget.
- (f) Define variable in dart programming. State rules to define variable.

Q.4 Answer the following (any five) (15)

- (a) How to delete document in MongoDB using deleteMany() function.
- (b) What is a module in Node.js? How to create and include user-defined module in NodeJs?
- (c) Explain following AngularJs directive with examples. **b)**
a) ng-model b) ng-hide
- (d) What is middleware function in ExpressJs? Explain with suitable examples.
- (e) What is class in dart programming? How to create it and add method to it?
- (f) Explain icon widget in flutter.