

Time: 2½ hrs.

Marks:75

- 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) What does package.json file consist of in NodeJs?
 - (b) What is a module in NodeJs? How to create and include user-defined module in NodeJs?
 - (c) Explain normalized data model of MongoDB.
 - (d) How to delete document in MongoDB using delete() and deleteMany() function.
 - (e) How to search document in MongoDB using find() and findOne() function.
 - (f) Explain event loop in NodeJs.
- Q.2 Answer the following (any four) (20)**
- (a) List advantages and disadvantages of AngularJs.
 - (b) Explain expressions in AngularJs with suitable examples.
 - (c) What is \$scope in AngularJS? Explain with suitable examples.
 - (d) Explain the post() method of REST API in ExpressJs. Give example.
 - (e) Explain the delete() method of REST API in ExpressJs. Give example.
 - (f) Write a program to create and implement addition module using controller in AngularJs.
- Q.3 Answer the following (any four) (20)**
- (a) What is widget in flutter? Explain column and row widget and icon widget.
 - (b) What is class in dart programming? How to create it and add method to it?
 - (c) Explain loops in dart programming.
 - (d) Explain data types in dart programming.
 - (e) Explain relational operators of dart programming in detail.
 - (f) Define variable in dart programming. State rules to define variable.
- Q.4 Answer the following (any five) (15)**
- (a) Explain routing in NodeJs.
 - (b) Explain following AngularJs directive with examples.
 - a) ng-app
 - b) ng-init
 - (c) Explain features of ExpressJs.
 - (d) Explain layouts in flutter.
 - (e) Explain Mongo shell interface.
 - (f) Explain class getter and setter in dart programming with suitable example.

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