



MASTER OF SCIENCE (INFO TECH & COM APP)-CS Examination
M.SC. (IT & CA) CS SEMESTER-3 NOVEMBER 2025 (Regular) NOVEMBER - 2025
CS - 15 WEB DEVELOPMENT USING ANGULAR FRAMEWORK

Faculty Code : 017

Subject Code : 24CS:MSIT-CO-03-01003

Time : 2.30 Hours]

[Total Marks : 70

Hour Instructions: All questions are compulsory.

Q.1 (A) Answer the following:

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- 1 Angular is _____ framework.
- 2 Angular uses metadata to inform the framework on how to handle a class. (True/False)
- 3 Full form of CLI.
- 4 What is the purpose of components in Angular?

(B) Answer in brief (Any one out of two)

2

- 1 What is the purpose of Angular CLI and how can you create a new Angular project using it?
- 2 What are the main parts of an Angular component?

(C) Answer in detail (Any one out of two)

3

- 1 Write down steps to create Angular Project.
- 2 What are the main components of an AngularJS application and what are their roles?

(D) Write a note on (Any one out of two)

5

- 1 What are the installation steps involved in Node and NPM? Also explain it.
- 2 Explain how Dependency Injection works in Angular with an example. Why is it important in application development?

Q.2 (A) Answer the following:

4

- 1 Two-way data binding in Angular uses the [(ngModel)] directive. (True / False)
- 2 What is data binding in Angular?
- 3 The syntax for one-way data binding from component to template is _____.
- 4 The directive used for event binding in Angular is _____.

(B) Answer in brief (Any one out of two)

2

- 1 Explain ngFor.
- 2 Explain ngIf.

(C) Answer in detail (Any out of two)

3

- 1 Explain the difference between one-way data binding and two-way data binding in Angular with examples.
- 2 What are the different types of data binding available in Angular?

(D) Write a note on (Any one out of two)

- 1 What is pipes in Angular? Explain types of pipes.
- 2 Explain Component Lifecycle.

Q.3 (A) Answer the following:

- 1 The decorator used to make a class available for dependency injection is _____
- 2 Services in Angular are typically singleton instances provided via dependency injection.
- 3 What is the Full form of DI in Angular?
- 4 What is Purpose of a service in Angular?

(B) Answer in brief (Any one out of two)

- 1 What is dependency injection in?
- 2 How do you register a service for dependency injection in Angular?

(C) Answer in detail (Any one out of two)

- 1 Explain the role of the @Injectable() decorator in Angular services
- 2 Describe how Angular ensures that a service is a singleton when provided in the root injector.

(D) Write a note on (Any one out of two)

- 1 Explain the process of creating and using a service with dependency injection in Angular, including code examples.
- 2 Discuss the advantages of using dependency injection and services in Angular applications.

Q.4 (A) Answer the following:

- 1 In Angular, routes are configured using the _____ method of the RouterModule.
- 2 What is the full form of SPA in Angular routing?
- 3 Angular's router allows navigation between components without reloading the entire page. (True/False)
- 4 What is the purpose of the directive in Angular?

(B) Answer in brief (Any one out of two)

- 1 Explain the role of the RouterModule in Angular.
- 2 What is the use of the routerLink directive in Angular?

(C) Answer in detail (Any one out of two)

- 1 Describe how to configure basic routing in an Angular application.
- 2 What is the purpose of the wrap-up process in Angular applications, especially after routing actions?

(D) Write a note on (Any one out of two)



- 1 Explain the steps to implement route guards in Angular and their importance in application security.
- 2 Discuss the lifecycle of routing in Angular and how wrap-up processes help in managing application state.

Q.5 (A) Answer the following:

- 1 In Angular, the _____ directive is used to bind form inputs in template-driven forms.
- 2 What is the full form of HTML used in Angular form templates?
- 3 Angular supports both template-driven and reactive forms for handling user inputs. (True/False)
- 4 What does the (click) event binding do in Angular?

(B) Answer In brief (Any one out of two)

- 1 What is the difference between template-driven and reactive forms in Angular?
- 2 How does Angular handle events using the \$event object?

(C) Answer in detail (Any one out of two)

- 1 Explain how validation is implemented in Angular reactive forms.
- 2 Describe how event binding works in Angular with an example.

(D) Write a note on (Any one out of two)

- 1 Explain the difference between template-driven forms and reactive forms in Angular, including their advantages and use cases.
- 2 Describe how Angular handles event binding and the role of the \$event object. Provide an example demonstrating how to use \$event in an event handler.