Question 1:

Which of the following are valid Angular lifecycle hooks?

- A) `ngOnInit`

- B) `ngAfterViewChecked`

- C) `ngOnChanges`

- D) `ngOnRender`

Correct Answers: A, B, C

Question 2:

In Angular 15, which of the following statements are true about Dependency Injection (DI)?

- A) DI allows you to pass dependencies to the constructor of a component.

- B) DI in Angular is hierarchical.

- C) Providers can be declared only in the root module.

- D) `@Injectable()` decorator is used to mark a class as a service.

Correct Answers: A, B, D

Question 3:

Which of the following are valid Angular directives?

- A) `*ngIf`

- B) `ngModel`

- C) `ng-container`

- D) `ngForEach`

Correct Answers: A, B, C

Question 4:

Which of the following Angular modules is used for routing in Angular applications?

- A) `RouterModule`

- B) `HttpClientModule`

- C) `FormsModule`

- D) `ReactiveFormsModule`

Correct Answers: A

Question 5:

Which of the following methods are available in Angular's `ActivatedRoute` service?

- A) `snapshot`

- B) `paramMap`

- C) `queryParams`

- D) `params`

Correct Answers: A, B, C, D

Question 6:

In Angular, which of the following are true about Angular pipes?

- A) Pipes can be used to transform data in templates.

- B) Custom pipes must implement the `PipeTransform` interface.

- C) Pipes can only be used in the `ngOnInit` lifecycle hook.

- D) The `|` symbol is used to apply a pipe in a template.

Correct Answers: A, B, D

Question 7:

Which of the following are true about Angular modules?

- A) Angular modules help to organize an application into cohesive blocks of functionality.

- B) Angular applications can only have one module.

- C) Feature modules should be imported into the root module using the `@NgModule` decorator.

- D) Angular modules can be eagerly or lazily loaded.

Correct Answers: A, C, D

Question 8:

In Angular's reactive forms, which of the following are valid control types?

- A) `FormControl`

- B) `FormGroup`

- C) `FormArray`

- D) `FormValue`

Correct Answers: A, B, C

Question 9:

Which of the following are valid Angular CLI commands?

- A) `ng new`

- B) `ng serve`

- C) `ng test`

- D) `ng add`

Correct Answers: A, B, C, D

Question 10:

In Angular 15, which of the following statements are true about components?

- A) A component is a basic building block of an Angular application.

- B) Components can have their own templates, styles, and logic.

- C) A component can be bootstrapped directly.

- D) Components cannot be used within other components.

Correct Answers: A, B

1. What are the primary advantages of using Angular CLI for Angular 15 development?

- A) Simplified project setup

- B) Automatic optimization of code

- C) Detailed configuration files required

- D) Immediate access to testing utilities

2. Which of the following decorators are used to define an Angular component?

- A) @NgModule

- B) @Component

- C) @Directive

- D) @Injectable

3. How can you optimize Angular 15 applications for better performance?

- A) Use OnPush change detection strategy

- B) Use Lazy Loading for modules

- C) Disable production mode

- D) Use Angular Universal for server-side rendering

4. Which of the following are valid lifecycle hooks in Angular 15?

- A) ngOnChanges

- B) ngAfterViewInit

- C) ngOnInit

- D) ngBeforeContentInit

5. In Angular 15, which of the following can trigger change detection?

- A) User input

- B) HTTP request completion

- C) setTimeout

- D) ngOnDestroy

6. What are the advantages of using Angular's Reactive Forms over Template-Driven Forms?

- A) Easier unit testing

- B) More powerful and scalable

- C) Requires less boilerplate code

- D) Synchronous updates

7. Which of the following are correct ways to provide a service in Angular 15?

- A) At the root level using @Injectable({ providedIn: 'root' })

- B) Providing in @NgModule providers array

- C) Injecting in the constructor without providing

- D) Using the @Component decorator

8. Which of the following are true about Angular Modules?

- A) They allow for lazy loading

- B) They can import other Angular modules

- C) They automatically register components globally

- D) They group related components, directives, and services

9. How can you handle errors in an Angular 15 application?

- A) Use try-catch blocks in services

- B) Use the ErrorHandler service

- C) Create custom error pages

- D) Ignore errors for better performance

10. Which of the following features are supported by Angular 15 Router?

- A) Lazy loading of modules

- B) Nested routes

- C) Route guards

- D) Two-way data binding

11. What are the benefits of using Angular's Dependency Injection system?

- A) Promotes reusability

- B) Helps with testing and mocking dependencies

- C) Automatically creates service instances

- D) Requires less memory

12. In Angular 15, how can you optimize bundle size?

- A) Use Lazy Loading

- B) Use Ahead of Time (AOT) compilation

- C) Use ng serve in production

- D) Minimize third-party libraries

13. Which of the following are valid Angular 15 directives?

- A) ngIf

- B) ngFor

- C) ngModel

- D) ngClass

14. What is the purpose of Angular's HttpInterceptor?

- A) Modifying HTTP requests globally

- B) Handling HTTP errors globally

- C) Caching HTTP responses

- D) Automatically retrying failed HTTP requests

15. What are the ways to share data between components in Angular 15?

- A) Input and Output decorators

- B) Services

- C) @HostBinding

- D) Local Storage

16. Which of the following statements are true about Angular Pipes?

- A) They transform data in templates

- B) They can be either pure or impure

- C) They are always executed synchronously

- D) They cannot be chained

17. How can you improve the security of an Angular 15 application?

- A) Sanitize user inputs

- B) Use Angular's built-in XSS protection

- C) Disable Angular's binding

- D) Implement Content Security Policy (CSP)

18. Which of the following statements about Angular Zones is correct?

- A) Zones help track asynchronous operations

- B) Zones automatically trigger change detection

- C) Zones are only used in production mode

- D) Zones can be bypassed using NgZone

19. What are the best practices for structuring an Angular 15 project?

- A) Feature modules for different sections of the application

- B) Global services provided in AppModule

- C) Keeping components small and focused

- D) Using a single module for the entire application

20. Which of the following are correct about Angular Elements?

- A) Angular components can be packaged as Web Components

- B) Angular Elements are platform-independent

- C) Angular Elements require a specific Angular version

- D) Angular Elements cannot use Angular services

21. Which of the following are valid ways to create a new Angular 15 component using Angular CLI?

- A) ng generate component my-component

- B) ng g c my-component

- C) ng create component my-component

- D) ng g comp my-component

22. What are the methods of handling HTTP responses in Angular 15?

- A) Using map and catchError operators in RxJS

- B) Using the HttpClient's toPromise method

- C) Using async/await with HttpClient

- D) Using the then method on Observables

23. How can you optimize Angular 15 applications for SEO?

- A) Using Angular Universal for server-side rendering

- B) Using meta tags and title service

- C) Enabling Lazy Loading

- D) Using Service Workers

24. What are the features of Angular's RouterLink directive?

- A) Binds a clickable element to a route

- B) Supports query parameters

- C) Can be used with both anchors and buttons

- D) Automatically reloads the page

25. Which of the following are correct about Angular 15 Service Workers?

- A) They can cache application assets

- B) They can handle push notifications

- C) They are only supported in production mode

- D) They are required for PWA functionality

26. What are the differences between Template-Driven and Reactive Forms in Angular 15?

- A) Template-Driven forms rely on directives

- B) Reactive Forms offer more control over form behavior

- C) Template-Driven forms are less scalable

- D) Reactive Forms are easier to implement for simple forms

27. How can you create custom pipes in Angular 15?

- A) Use the @Pipe decorator

- B) Implement the PipeTransform interface

- C) Register the pipe in a module's declarations array

- D) Use the pipe in HTML templates without importing

28. Which of the following are valid use cases for Angular's Content Projection?

- A) Passing template fragments from parent to child components

- B) Using multiple <ng-content> slots

- C) Interacting with child component DOM directly

- D) Implementing dynamic templates

29. What are the benefits of using Angular's ViewEncapsulation?

- A) Prevents styles from leaking into other components

- B) Allows global styles to be overridden

- C) Makes styles available across the application

- D) Encapsulates styles within the component

30. Which of the following are features of Angular 15's AOT compilation?

- A) Faster rendering in the browser

- B) Smaller bundle sizes

- C) Improved security against injection attacks

- D) Requires more memory during development

31. What are the advantages of using Angular's Angular Universal?

- A) Improves SEO by enabling server-side rendering

- B) Reduces the initial load time of the application

- C) Automatically generates a service worker

- D) Helps in lazy loading of modules

32. Which of the following are supported by Angular 15's router guards?

- A) CanActivate

- B) CanDeactivate

- C) CanLoad

- D) CanUnload

33. What are the key benefits of Angular Ivy in Angular 15?

- A) Smaller bundle sizes

- B) Faster compilation and build times

- C) Easier debugging with improved stack traces

- D) Automatic AOT compilation

34. How can you implement lazy loading in Angular 15?

- A) Using the loadChildren property in the route configuration

- B) Using dynamic imports

- C) Loading modules with HttpClient

- D) Using ngIf directives

35. Which of the following Angular 15 features help in managing application state?

- A) Services with BehaviorSubject

- B) NgRx Store

- C) Component's local state

- D) Router's ActivatedRoute

36. What are the advantages of using Angular's Reactive Extensions (RxJS)?

- A) Declarative handling of asynchronous operations

- B) Support for complex event streams

- C) Improved memory management with operators like takeUntil

- D) Simplifies working with promises

37. What are the best practices for handling forms in Angular 15?

- A) Use Reactive Forms for complex forms

- B) Validate forms using built-in validators

- C) Use custom validators for business logic

- D) Always use Template-Driven Forms for simplicity

38. Which of the following statements about Angular's Change Detection Strategy are true?

- A) Default strategy checks all components in a tree

- B) OnPush strategy checks only when input properties change

- C) Change detection can be manually triggered

- D) Change detection cannot be bypassed

39. How can Angular's Renderer2 be used in Angular 15?

- A) To manipulate DOM elements safely

- B) To create elements dynamically

- C) To bypass Angular's security checks

- D) To apply styles to elements

40. Which of the following are correct about Angular's template-driven forms?

- A) Forms are created using Angular directives

- B) Forms are asynchronous by default

- C) Validation is defined in the component class

- D) Forms require manual synchronization with data models

41. What are the ways to implement route guards in Angular 15?

- A) Using CanActivate interface

- B) Using CanDeactivate interface

- C) Using AuthGuard services

- D) Using route data property

42. Which of the following are correct about Angular's structural directives?

- A) They manipulate the DOM layout

- B) They do not modify the component's data model

- C) They can be used with multiple conditions

- D) They always require a template reference

43. How can you handle asynchronous operations in Angular 15?

- A) Using Observables

- B) Using Promises

- C) Using async/await syntax

- D) Using ngOnChanges hook

44. What are the key benefits of Angular's Dependency Injection system?

- A) Reduces code coupling

- B) Simplifies service instantiation

- C) Enhances testability

- D) Allows singleton services across modules

45. Which of the following are correct ways to unsubscribe from Observables in Angular 15?

- A) Use the takeUntil operator

- B) Manually call unsubscribe in ngOnDestroy

- C) Use the async pipe in templates

- D) Allow Angular's garbage collector to handle it

46. How can you implement content projection in Angular 15?

- A) Use the <ng-content> tag

- B) Pass templates from parent to child components

- C) Bind data directly to child components

- D) Use the <ng-template> tag

47. Which of the following are true about Angular 15's Event Binding?

- A) Binds event handlers to DOM events

- B) Supports custom event creation

- C) Automatically prevents default behavior

- D) Can be combined with data binding

48. How can Angular's Injector be used in Angular 15?

- A) To manually instantiate services

- B) To provide services dynamically

- C) To bypass hierarchical injectors

- D) To inject dependencies at runtime

49. Which of the following are valid ways to work with Angular 15 animations?

- A) Use Angular's built-in animation API

- B) Create animations using CSS

- C) Use third-party animation libraries

- D) Define animations in the component metadata

50. What are the common practices for optimizing Angular 15 application performance?

- A) Lazy loading routes and modules

- B) Implementing AOT compilation

- C) Avoiding the use of Angular Ivy

- D) Using trackBy with ngFor