1. **What is AngularJS?**
   Ans: AngularJS is a framework to build large scale and high performance web application while keeping them as easy-to-maintain

2. **What is the purpose of using AngularJS?**
   Ans: AngularJS is a JavaScript framework. It can be added to an HTML page with a <script> tag. It extends HTML attributes with Directives, and binds data to HTML with Expressions.

3. **What are the three purposes of form elements in angularjs?**

   The form element has three purposes,
   a) The first purpose is to enable validation
   b) The second purpose of the form element is to disable any validation that the browser might try to perform,
   c) The final purpose of the form element is to define a variable that will be used to report on the form validity.

4. **What are the advantages of AngularJS?**
   Following are the advantages of AngularJS.
   - AngularJS provides capability to create Single Page Application in a very clean and maintainable way.
   - AngularJS provides data binding capability to HTML thus giving user a rich and responsive experience.
   - AngularJS code is unit testable.
   - AngularJS uses dependency injection and make use of separation of concerns.

5. **What is data binding in AngularJS?**
   Data binding is the automatic synchronization of data between model and view components. ng-model directive is used in data binding.

6. **What is two-way Model binding?**
   AngularJS provides a two-way binding method, where the model is used to generate elements and changes in the element cause corresponding changes in the model. Two-way bindings can be applied only to elements that take user input.

7. **What are two-way data binding and one-way data binding?**
   One-way data binding means a value is taken from the data model and inserted into an HTML element.

   Two-way data bindings track changes in both directions, allowing elements that gather data from the user to modify the state of the application.

8. **What are the controllers in AngularJS?**
   Controllers are JavaScript functions that are bound to a particular scope. They are the prime actors in AngularJS framework which controls the interactions between the Model and View.

9. **What are the services in AngularJS?**
AngularJS come with several built-in services. For example $http service is used to make XMLHttpRequests (Ajax calls). Services are singleton objects which are instantiated only once in app.

10. **What are the filters in AngularJS?**
Filters select a subset of items from an array and return a new array. Filters are used to show filtered items from a list of items based on defined criteria.

11. **Explain directives in AngularJS.**
Directives are markers on DOM elements (such as elements, attributes, css, and more). These can be used to create custom HTML tags that serve as new, custom widgets. AngularJS has built-in directives (ng-bind, ng-model, etc) to perform most of the task that developers have to do.

12. **What is MVC?**
<u>M</u>odel <u>V</u>iew <u>C</u>ontroller or MVC as it is popularly called, is a software design pattern for developing web applications. A Model View Controller pattern is made up of the following three parts:
- **Model** − It is the lowest level of the pattern responsible for maintaining data.
- **View** − It is responsible for displaying all or a portion of the data to the user.
- **Controller** − It is a software Code that controls the interactions between the Model and View.

13. **Explain ng-model directive.**
ng-model directive binds the values of AngularJS application data to HTML input controls. It creates a model variable which can be used with the html page and within the container control (for example, div) having ng-app directive.

14. **Write the benefits of using model.**
The benefits of using model is that it is isolated from the controller and views for that we can test our logic more easily .

15. **Explain ng-app directive.**
ng-app directive defines and links an AngularJS application to HTML. It also indicate the start of the application.

16. **Explain ng-controller directive.**
ng-controller directive tells AngularJS what controller to use with this view. AngularJS application mainly relies on controllers to control the flow of data in the application. A controller is a JavaScript object containing attributes/properties and functions. Each controller accepts $scope as a parameter which refers to the application/module that controller is to control.

17. **What are AngularJS expressions?**
Expressions are used to bind application data to html. Expressions are written inside double braces like {{ expression}}. Expressions behave in same way as ng-bind directives. AngularJS application expressions are pure JavaScript expressions and outputs the data where they are used.

18. **How angular.module works? or Write the main roles of module in angularjs.**
Ans: Modules have three main roles in an AngularJS .
• To associate an AngularJS application with a region of an HTML document
• To act as a gateway to key AngularJS framework features
• To help organize the code and components in an AngularJS application

19. What is a service?

Services are JavaScript functions and are responsible to do specific tasks only. Each service is responsible for a specific task for example, $http is used to make ajax call to get the server data. $route is used to define the routing information and so on. Inbuilt services are always prefixed with $ symbol

20. What is constant?

constants are used to pass values at config phase considering the fact that value cannot be used to be passed during config phase

21. What is the meaning of declaring variables name start with $ sign in angularjs?

In an AngularJS app, variable names that start with $ represent a built-in service, which is a self-contained component that provides features to multiple controllers.

22. What is the function of $http service?

The $http service defines HTTP methods (GET, POST, PUT, DELETE) for making different kinds of Ajax request to run a CRUD operation on server.

23. Why and when to use filter?

Why: Filters contain transformation logic that can be applied to any data in the application for presentation in a view.

When: Filters are used to format data before it is processed by a directive and displayed in a view.

24. Mention some built-in filters for single value.

The Built-in Filters for Single Values like:

- currency ,
- date,
- json,
- number,
- uppercase and
- lowercase.

25. Describe any four validation variables defined by form directives.

$dirty	Returns true if the user has interacted with the element/form
$valid	Returns true if the contents of the element/form are valid
$invalid	Returns true if the contents of the element/form are invalid
$error	Provides details of validation error

26. Explain the classes used by angularjs validation.

ng-pristine	Elements that the user has not interacted are added to this class.
ng-dirty	Elements that the user has interacted are added to this class.
ng-valid	Elements that are valid are in this class.
ng-invalid	Elements that are not valid are in this class.

27. Explain any four Boolean attribute directives.

ng-checked	used on input elements
ng-disabled	used on input and button elements
ng-readonly	used on input elements
ng-selected	used on option elements

28. Why and when directives are used?

Why : Directives expose core AngularJS functionality such as event handling, form validation, and templates. use custom directives to apply application features to views.

When: Directives are used throughout an AngularJS application.

29. What are the function of ng-repeat and ng-include directives?

ng-repeat : Generates new copies of a single element and its contents for each object in an array or property on an object.

ng-include: Loads, processes, and inserts a fragment of HTML into the Document Object Model.

30. What are the benefits of partial views?

Ans: there are three benefits to using partial views.

    I.   The first is to break up the application into manageable chunks.

    II.   the second is to create fragments of htML that can be used repeatedly in an application..

    III.   the third is to make it easier to show different areas of functionality to the user as they use the application

31. What is the purpose of using $index variables?

$index variable is provided by the ng-repeat directive, to display the position of each item in the array.

32. Write the differences between ng-include and ng-switch directives.

    a) **ng-switch** is used when we need to alternate between smaller, simpler blocks of content.

    b) **ng-include** attribute is better suited for more complex content or content that you need to use repeatedly throughout an application.

33. What are the functions of ng-class-even and ng-class-odd?

ng-class-even: Sets the class attribute for even-numbered elements generated within the ng-repeat directive.

ng-class-odd : Sets the class attribute for odd-numbered elements generated within the ng-repeat directive.

34. Why and when to use controller and scope?

Why :Controllers are the link between the model and views. They use scopes to expose data from the model to views and the logic required to make changes to the model based on user interactions with the view.

When :Controllers are used throughout an AngularJS application and provide scopes to the views they support.