.NET C# QUESTION BANK

1. What is Common Language Runtime (CLR)?
2. What is managed and unmanaged code?
3. What are the core components of ADO.NET architecture?
4. Name two commonly used ADO.NET data providers.
5. Explain the role of a connection string in establishing database connection
6. Differentiate between the ExecuteNonQuery and ExecuteReader methods in ADO.NET commands.
7. How does a Data Adapter facilitate communication between a dataset and a data source?
8. Define what a Dataset is in the context of ADO.NET.
9. List two different methods to connect to a database using ADO.NET.
10. Accessing Data with Dataset and Data Reader:
11. Explain the difference between using a Dataset and a Data Reader in ADO.NET for data retrieval.
12. What are the basic steps involved in creating a simple ADO.NET application?
13. What advantages do stored procedures offer when used within an ADO.NET application?
14. Explain how the architecture of ADO.NET allows for multiple data providers. Give examples of two data providers and their specific uses.
15. Discuss the role of a Data Adapter and how it populates a Dataset in disconnected environments in ADO.NET.
16. Compare and contrast the use of LINQ (Language-Integrated Query) with traditional methods to access data in ADO.NET.
17. Illustrate the process of integrating stored procedures within an ADO.NET application, emphasizing the advantages and implementation details.
18. Describe the mechanisms and benefits of batch processing and how it can be achieved using Data Adapters in ADO.NET.
19. Discuss the role of transactions in maintaining data integrity and how they can be implemented in ADO.NET applications.
20. Explain the three-tier architecture in the context of ADO.NET and how it facilitates data access in applications.
21. Compare and contrast the various types of commands (Text, Stored Procedure, Table Direct) in ADO.NET.
22. Illustrate how asynchronous commands can be utilized in ADO.NET applications.
23. Explain the role of a Data Adapter in ADO.NET and how it serves as a bridge between a dataset and a data source.

24. What is view state? Explain? What is method overloading? Explain with examples?
25. What is namespace? Explain system namespace?
26. Name all the C# access modifiers?
27. Explain Write() and Writeline() methods with examples ? Explain The implicit and explicit conversion of data types?
28. What is the use of menus and toolbars in windows application? Explain?
29. Explain Sorted,SelectedMode ,Multicolumn,SelectedItem, and SelectedIndex properties of listbox control.
30. Explain .Net framework architecture in detail?
31. Detail the methods used by the Data Adapter to update data in the dataset and subsequently reflect these changes in the data source.
32. Define a Dataset in the context of ADO.NET and describe its structure.
33. Explain the process of loading and manipulating data within a Dataset.
34. Explain the process of connecting to a database using ADO.NET, detailing both connection-oriented and connectionless approaches.
35. Discuss the various authentication methods available for connecting to different data sources in ADO.NET.
36. Compare and contrast the functionalities and advantages of using a Dataset versus a Data Reader for data retrieval in ADO.NET.
37. Discuss the advantages and limitations of using a Data Reader when accessing large datasets.
38. Explain the concept of forward-only, read-only access and how it's applied in a Data Reader.
39. Outline the steps involved in creating a basic ADO.NET application from scratch.
40. Discuss the process of executing stored procedures with parameters in ADO.NET.
41. What is C#? Explain its Features?
42. What is the difference between static, public, and void?
43. Explain the concept Jagged Arrays?
44. What is the benefit of 'using' statement in C#?
45. What is assembly? Explain the purpose of assemblies in .net framework?
46. Explain the work of session state in ap.net?
47. Explain the use of web.config and global.asx files in asp.net application?
48. Explain Asp.net page lifecycle?Write a short note on server side state management? Explain different types of operators in C#.
49. Write short note on

   a.JIT compilation

b. Garbage Collection

c. CLR

50. What are conditional statement? Write a program to explain any conditional statement ?

51. Write a short note on

   a. Data Grid

   b. .Net Data Provider

   c. Data Set Component

52. Explain the concept of array with example?

53. Write a short note on

   a. Sub procedure

   b. Data Types

   c. For loop

54. Write a short note on

   a. Input box function

   b. Timer control

   c. Buttons

55. What distinguishes web controls from HTML controls in web development?
56. Name three examples of web controls and describe their functionalities in web applications.
57. Explain the importance of server controls in building dynamic web pages.
58. Compare and contrast the role of standard controls and validation controls in web applications.
59. Describe the difference between static controls and dynamic controls and their relevance in web development.
60. Discuss the benefits of web controls when managing complex user interface interactions in web applications.
61. Explain the concept of post back and its relevance in the functionality of web controls.
62. Elaborate on the event-driven model in web controls and its implementation for user interactions.
63. Define HTML controls and provide examples of three commonly used HTML controls.
64. Explain the structure and functionality of an HTML input control.
65. Name the differences between HTML controls and server controls in web development.
66. Discuss the limitations of using HTML controls exclusively in complex web applications.
67. Explain the impact of client-side scripting on the behavior of HTML controls.
68. Elaborate on the usage of custom attributes in HTML controls and their impact on application behavior.
69. Discuss the importance of semantics in HTML controls for web accessibility and search engine optimization.
70. Compare the use of event handling in HTML controls versus server controls in ASP.NET.