S.NO:1   **TOPICS:SQL SERVER**

1 Understanding Data,Database and Relational Database ?
2 Understanding Relational Database Management Systems and their usages?
3 Understanding Relational Operators like Restrict, Project, Product, Union, Intersect, Difference, Join and Divide .
4 Understanding Keys in RDBMS like Candidate Key, Alternate Key, Primary Key, Foreign key and Composite key.
5 Explaining Normalizing and Denormalizing Data ?
6 Explaining Various Normalizing forms like 1NF , 2NF , 3NF and BCNF .
7 Introducing SQL Server ?
8 Explaining Application Architecture like Single Tier, Two- Tier , Three- Tier and N-Tier .
9 Explaining SQL ? Types of SQL Statements like DDL, DML, DQL and DCL .
10 Explaining Sql Server Management Studio and its working ?
11 Explaining Types of Data like Structured , Semi structured and Unstructured ?
12 Identifying Data types ?
13 Working with DQL statements with select command.
14 Selecting Retrieving attributes e.g. columns from table ?
15 Selecting the columns with customizing the display means changing the name of column for display ?
16 Performing Calculations on columns of tables with arithmetic operations ?
17 Retrieving selected rows with where clause and comparison operators like =, < . >= etc?
18 Retrieving records with logical operators ? And, OR , NOT ?
19 Retrieving Records with range operators like between and not between
20 Retrieving records with in and not in operators .
21 Retrieving Records that match a pattern with like keyword and wildcards .
22 Retrieving records that contain null values.
23 Retrieving records to be displayed in a sequence by using order by .
24 Retrieving records from the top of a table by using top keywords ?
25 Retrieving records from a particular position by using offset-fetch clause ?
26 Retrieving records without duplication of values by using distinct keyword ?
27 Working with string functions.
28 Working with Conversion functions
29 Working with Date Functions.
30 Working with Mathematical functions.
31 Working with Aggregate functions.
32 Grouping data by using group by and having ?
33 Querying data by using joins .
34 Working with inner joins ?
35 Working with outer joins ? Like left outer, right outer and full outer joins ?
36 Working with cross joins.
37 Working with self joins .
38 Working with Equi joins .
39 Working with Subqueries ?
40 Using in and exists keywords?
41 Working with Modified Comparison operators? Like > ALL , > ANY , =ANY etc .
42 Combining result sets by using Union , Except and Intersect operators.
43 Explaining Various system databases like master, tempdb, model and msdb .
44 Explaining the database files like primary,secondary and transaction log files.
45 Creating, altering, renaming and droping User-defined database.
46 Creating, altering, renaming and droping user defined tables as well as inserting rows and inserting partial data in it.
47 Working with identity property in tables.
48 Implementing Data integrity with Applying Constraints, Applying rules and creating user-defined data types.
49 Creating Synonyms of tables.

50 Copying table into new table.
51 Updating and deleting existing rows.
52 Difference between delete, drop and truncate .
53 Implementing Indexes e.g. clustered and nonclusterd indexes.
54 Understanding Views , creating , altering and droping views and understanding rules for views.
55 Understanding batches and variables and displaying user defined message.
56 Working with conditional constructs like if..else, case and while statements.
57 Error and exceptions handling by using Try-Catch.
58 Creating Stored Procedures and guidelines for it.
59 Executing stored procedure.
60 Altering and dropping stored procedure.
61 Creating paramterized stored procedure.
62 Returning values from stored procedure.
63 calling procedure from other procedure.
64 Understanding system procedures.
65 Creating Functions e.g. scalar and table valued functions.
66 Difference between functions and procedures.
67 Working with triggers and types of triggers .
68 Understanding transactions and its features like ACID.
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Sno.2   **Topic:ASP.NET**
1   What is web application ? What is Client and Server ?
2   What is ASP.NET Framework and its history ? What is IIS ?
3   Static and Dynamic Web Pages?
4   What is client side and server side scripting ?
5   Explain the Working of ASP.NET Application ?
6   Features of ASP.NET ?
7   Directories used in ASP.NET Web Applications?
8   Files Used in ASP.NET Web Applications ?
9   Single-File and Code-behind Page Model ?
10 Page Events ? Web page code of aspx and aspx.cs ? AutoEventWireUp property of Page tag?
11 Form tag and it's methods like get and post ? Form action property ?
12 What is posting ? What is Postback ? What is AutoPostBack ?
13 What is Page Life Cycle ? What is Life cycle Events ?
14 Implementing all HTML Controls ?
15 Implementing ASP Standard Controls ?
16 Exploring Default and Non Default Events ?
17 Making Web User Controls ?
18 What is IsPostBack ?
19 Styles implementation by using CSS?
20 Implementing Client Side Scripting by using Javascript?
21 Working with Master Pages and nested Master Pages ?
22 Using Navigation controls with site map ?
23 Redirecting user to any other web page with values ?
24 Using HyperLinks ?
25 Using Cross Page Postback?
26 using Response.Redirect and Server.Transfer Methods ?
27 Getting Control Information from the Source Page in the Same Application?
28 Managing state in web application ?

29   Client side state management ?
30   Server side state management ?
31   Working with Data controls ?
32   ADO.NET connectivity ?Global Connection ? SqlConnection , SqlCommand ,SqlDatareader etc for DML working
33   Using SQLDataSource?
34   Inserting , Updating and Deleting using SqlDataSource ?
35   Using Rich Controls like GridView , FormView and DetailsView.
36   Data Biding ?
37   Error Handling by using try catch , Application level handling , using web.config level error handling ?
38   Using WebParts Controls ?
39   Working with AJAX controls and toolkit ?
40   Security implementation in Web Application ?
41   Authentication and Authorization ?
42   Exploring WAT ?
43   Exploring Validation Controls ?
44   Exploring Login Controls ?

Sno.3   **Topic:c#**
1   About C# Programming Language like history and type and purpose and features? What is OOPS?
2   What is .NET Framework ? What are compilers ? Difference between Compiler and Interpreter ?
3   Classes in C# ? Class name Conventions ? Types of classes like partial , non static and static ?
4   Escape Sequences?
5   Basic Structure of C# Program like Main( ) Method usage ?
6   What are namespaces ?
7   What is the difference between classes and namespaces?
8   What is the process of compiling of C# source code ?
9   What is MSIL?
10   What is JIT Compiler ?
11   What is Assembly ? Types of Assembly ?
12   What is Object ?
13   What is the base class of all classes in the .NET Framework?
14   Explain the .NET Architecture ?
15   Latest .NET Framework and Latest C# languages ? How many .Net based languages available ?
16   What are Variables? Variable Naming Conventions ? Declaring and Initializing Variables ?
17   What are Data Types ? Types of Data types ?
18   Difference between Value type and reference type data types?
19   Difference between dynamic and var type variables ?
20   Difference between variables and constants ?
21   Difference between constants and read only variables?
22   Console.ReadLine() and Console.WriteLine() Functionality ?
23   What is using Keyword ?
24   What are comments in C# ? Types of Comments ?
25   Instantiating Class and its process?
26   What are operators and Operands ? Types of Operators ?
27   Explain Arithmetic , Arithmetic assignment , Unary , Comparison and Logical Operators ?
28   Explaining Conditional Constructs like if-else , nested if-else and switch case ?
29   Explain Loops like While , do while , For loop and foreach loop ?
30   Goto , break , return and continue statements ?
31   What are the class members ?

32 What are access specifiers ? How may access specifiers are there ?
33 What are methods and convention for methods naming?
34 Explain the importance of Parameterized Methods ?
35 Explain call by value , call by reference and call by output ?
36 Explain Optional and Named Arguments ?
37 Explain Recursion ? And it's advantages?
38 Explain static attributes,static methods and static class?
39 Explaining Constructors ? Types of Constructors like static,private and instance ? Constructors with parameter ?
40 Explaining Destructors ?
41 Explain the Garbage Collection and it's Process and working ?
42 Explain the Finalize() and Dispose() methods in Garbage Collection class?
43 Explain Properties in C#?
44 Explaining Structure ? Difference between Structure and Class?
45 Explaining Enumerations and it's usage with examples?
46 Explaining Array and it's Implementation in one dimensional and two dimensional ? Copying array ?
47 Explain the Param Arrays and Jagged Array? Passing array as parameters ? Passing array by ref keyword ?
48 Explaining Array Class with it's properties like Length,Rank etc and also methods like Sort, Clear and GetLength ?
49 Explain the Collections ?
50 Explain the Generic Class in C# ? Advantage of Generic Class?
51 Explain the types of Collections like generic and non generic ?
52 Explain the working of ArrayList , List,Stack,Queue and Dictionary collections with generic and non generic ?
53 Explain Inheritance and implementation ?
54 Explain abstract class and abstract methods ?
55 Explain the sealed classes?
56 Explain the interfaces ?
57 Explain base class initialization ?
58 What is Polymorphism?
59 Implementing function overloading and constructor overloading ?
60 Implementing function overriding ?
61 Reading and writing the text file by using File class?
62 Reading and Writing the text files by using FileStream class,StreamReader and StreamWriter.
63 Creating Directory and Creating files by using File.IO classess.
64 Fetching Directory and File details by using File.IO classes.
65 Exception handling by using try,catch and finally .
66 System Exceptions and Application Exceptions handling .
67 Creating application exception and throwing it.
68 Threads in C# like single thread and multi thread ?
69 Creating single thread and multi thread ?
70 Implementing Thread methods like Start(),Sleep(0,Abort() .
71 What is Thread Life Cycle ?
72 Synchronizing threads ?
73 Explaining Delegates ? Types of Delegates ?
74 Working with Events in C#?
75 What are attribute and reflections in C#?
76 Explain CLR and its process?
77 Explain Casting , boxing and unboxing in C# ?
78 Explain CLS and CTS?
79 What do you mean by interoperability feature in C#?
80 What are command Line arguments in C# to be used with Main() function ?