

Name of Subject	.NET Technologies	Subject Code	DEIT-14514
Batch	2017-2021	Class	D3IT A and B

Question Bank for .NET

2 Marks:

1. List down various .NET technologies.
2. VISUAL STUDIO .NET includes mainly languages. Comment.
3. Why do we want to convert ASCII code to MSIL code?
4. Role of MSIL?
5. What is an Assembly? List different types of Assemblies?
6. What is the global assembly cache (GAC)?
7. Justify the usage of GAC.
8. What is garbage collection?
9. Why static void Main(string[] args) is important. Give reason.
10. Is multiple main() is allowed in c#? Justify the statement with a program.
11. What is variable? How we can declare it in C#?
12. Create an instance of a class.
13. Explain Different Types of Constructors in C#?
14. Illustrate the use of “this” keyword.
15. How can you create and sort arrays?
16. What is inheritance?
17. Define Overriding?
18. Can you use multiple inheritance in .NET?
19. Does C# support multiple inheritance? Justify your answer.
20. How do you create an instance of an interface?
21. Why reference types are always created on the heap?
22. How do you call a delegate?
23. What is the purpose of a delegate?
24. Define boxing and unboxing? What is the difference between the ‘ is’ and ‘as’ operators?

25. Define boxing and unboxing?
26. How can we add or remove items from Collections?
27. By default thread are back ground or foreground? Comment.
28. Why we use generics?
29. Summarize the different ways we can execute a method by thread.
30. How and when to use IEqualityComparer?
31. What is the use of per in Graphics?
32. Which command would you use to close the application domain.
33. How we can add text to graphics? Write syntax.
34. Describe the purpose of Image and Bitmap classes.
35. Write down the role Application Domain class.
36. How can Threads be created?
37. Describe the Deflate Stream class.
38. Write the most common way to view the rows in a DataTable object?
39. Give the types of security in WCF?
40. What is the purpose of the DataAdapter class?
41. Create a SqlConnection Object
42. What are two important objects of ADO.Net?
43. What is the function of StreamWriter Class?
44. Programs can richly interact with each other at run time through the _____

5 Marks:

1. Explain Dot Net Framework.
2. Explain the silent features of .NET framework.
3. Explain the .NET Framework Architecture with block diagram.
4. Explain exception handling in C#. Write a C# code to handle divide by zero exception.
5. Write a C# program for String operations, illustrates the use of some of these methods including compare(), concat(), copy(), Insert(), indexOf().
6. Write a program that creates five variables, one of each of the following types: int, float, double, char, and string, Name the variables whatever you like. Initialize the variables and apply the operators to display the result.

7. Write a program to create an array and display sum of its elements.
8. Write a program in c# to perform sorting operation.
9. Write a Program to arrange given numbers in ascending order.
10. Does the concept of overloading and overriding are same? Why. Explain it with an example.
11. Comparison between overloading and overriding with an example.
12. Write a program to create interface IEmployee and ICompany to a single class.
13. Write a program to find area of various shapes like rectangle, circle and triangle using concept of interfaces.
14. Explain the following i) Generic List ii) SortedList iii) ArrayList
15. Differentiate between boxing and unboxing
16. How can we Add and Remove items from Queue and Stack?
17. What is Delegate? Write a C# code snippet to demonstrate delegates.
18. List out the different members of system.object and explain how to override the following virtual methods for user defined class: i) ToString() ii) GetHashCode()
19. Describe the purpose of an application domain and how to create it?
20. Explain isolated storage and describe reading and writing data to isolated Storage.
21. Differentiate between ADO and .ADO, NET? What is the DataAdapter Object in ADO.NET?
22. Compare the architecture of ADO with ADO.NET.
23. Explain ASP.Net in detail with its features.
24. What is an ADO.Net data provider? Explain various types of data providers available.
25. What do you mean by web services? What are the protocols of web services? Also explain its class reference.

10 Marks:

1. What are the advantages and disadvantages of DotNet FrameWork? How it differs from Java FrameWork?
2. a) Make the diagram of .NET Framework. Explain each of its components. How CLR different from CLS.
b) What is GAC? What are the steps to create an assembly and add it to the GAS?
3. Make the diagram of .NET Framework. Explain each of its components. How it is different from J2EE framework. Explain MSIL in detail.

4. Explain in detail: 1) CLR 2)CTS 3)CLS
5. Develop a C# program that determines a student's grade. The program will read three types of scores (quiz score, mid-term score, and final score) and determine the grade based on the following rules:
 - 1) If the average score $\geq 90\%$ \Rightarrow grade=A
 - 2) If the average score $\geq 70\%$ and $< 90\%$ \Rightarrow grade=B
 - 3) If the average score $\geq 50\%$ and $< 70\%$ \Rightarrow grade=C
 - 4) If the average score $< 50\%$ \Rightarrow grade=FC# program to write student database in a flat file and read from the same file and print the 'marklist' of students.
6. Write a C# program to find the minimum and maximum element of an array. The array should have both positive and negative elements. Irrespective of the elements, your program should find maximum number when all numbers are made positive and minimum number when all numbers are made negative.
7. Write a program to create a thread and pass data to that threads and execute the context?
8. Explain the working of dictionaries in collections? How the HybridDictionary differ from OrderedDictionary?
9. Explain application domain? How to create application domain and unload an application domain?
10. Explain in detail various compression streams.
11. Explain Drawing Graphics, location and size of controls. Draw lines and shapes and fill shapes.
12. Write a program to Convert Web Forms Pages into ASP.NET User Controls.
13. The Northwind database contains a table named Orders. Write a program to retrieve the order date and shipped date of all the records in the Orders table.
14. What are various Data access models in ADO.NET? Explain them with the help of suitable example.
15. a) Design GUI and write code in VB.NET to accept length and breadth in text boxes and button to calculate area of rectangle and display response in message box. b) How to use MDI in VB.NET.
16. Write a note on the following:
 - 1) Transactions in ADO.NET
 - 2) User controls and custom controls in ASP.NET
17. Create a program for accepting the details of Employee. Using the connected architecture of ADO.NET, perform the following operations:
 - Insert record.

- Search record.
- Update record.
- Delete record.