

NGM College

Department of Computer Science (SF)

17UCS412 - . NET Programming

K1 Level Multiple Choice Questions with Answers

Unit-I

1. A variable which is declared inside a method is called a _____ variable

- A. Serial
- B. Local
- C. Private
- D. Static

ANSWER : Option B

2. Which is the String method used to compare two strings with each other ?

- A. Compare To()
- B. Compare()
- C. Copy()
- D. ConCat()

Answer: Option B

3. Minimum and Maximum range of values supported by 'float' data type are ?

- A. $1.5 * 10^{-40}$ to $3.4 * 10^{38}$
- B. $1.5 * 10^{-45}$ to $3.4 * 10^{30}$
- C. $1.5 * 10^{-45}$ to $3.4 * 10^{38}$
- D. $1.5 * 10^{-45}$ to $3.4 * 10^{37}$

Answer: Option C

4. Which datatype should be more preferred for storing a simple number like 35 to improve execution speed of a program?

A. sbyte

B. short

C. int

D. long

Answer: Option A

5. What will be output of the following conversion ?

```
static void Main(string[] args)
{
    char a = 'A';
    string b = "a";
    Console.WriteLine(Convert.ToInt32(a));
    Console.WriteLine(Convert.ToInt32(Convert.Tochar(b)));
    Console.ReadLine();
}
```

A. 1, 97

B. 65, 97

C. 65, 97

D. 97, 1

Answer: Option C

6. Scope of variable is related to definition of variable as:

1. Region of code within which variable value is valid and hence can be accessed.
2. No, relation with region where variable is declared its value is valid in entire scope.

A. a

B. b

C. a, b

D. None of the mentioned

Answer: Option A

7. Type of Conversion in which compiler is unable to convert the datatype implicitly is ?

A. ushort to long

B. int to uint

C. ushort to long

D. byte to decimal

Answer: Option B

8. Select output of the given set of Code :

```
static void Main(string[] args)
{
    String name = "Dr.Gupta";
    Console.WriteLine("Good Morning" + name);
}
```

A. Dr.Gupta

B. Good Morning

C. Good Morning Dr.Gupta

D. Good Morning name

Answer: Option C

9.Which of the following is an 8-byte Integer?

- A. Char
- B. Long
- C. Short
- D. Byte

Answer: Option B

10.Which of the following is NOT an Integer?

- A. Char
- B. Byte
- C. Integer
- D. Short

Answer: Option A

Unit-II

11.Which of the following are value types?

- 1.Integer
 - 2.Array
 - 3.Single
 - 4.String
 - 5.Long
- A. 1, 2, 5
 - B. 1, 3, 5
 - C. 2, 4
 - D. 3, 5

Answer: Option B

12. Which of the following does not store a sign?

- A. Short
- B. Integer
- C. Long
- D. Byte

Answer: Option D

13. What is the size of a Decimal?

- A. 4 byte
- B. 8 byte
- C. 16 byte
- D. 32 byte

Answer: Option C

14. Which of the following is the correct size of a Decimal datatype?

- A. 8 Bytes
- B. 4 Bytes
- C. 10 Bytes
- D. 16 Bytes

Answer: Option D

15. Which of the following statements is correct?

- A. When a class inherits an interface it inherits member definitions as well as its implementations.
- B. An interface cannot contain the signature of an indexer.
- C. Interfaces members are automatically public.
- D. To implement an interface member, the corresponding member in the class must be public as well

as static.

Answer: Option C

16. Which of the following can implement an interface?

1.Data

2.Class

3.Enum

4.Structure

Namespace

A. 1, 3

B. 2, 4

C. 3, 5

D. 4 only

Answer: Option B

17. Which of the following will be the correct output for the C#.NET code snippet given below?

```
String s1 = "ALL MEN ARE CREATED EQUAL";
```

```
String s2;
```

```
s2 = s1.Substring(12, 3);
```

```
Console.WriteLine(s2);
```

A. ARE

B. CRE

C. CR

D. REA

Answer: Option B

18.If s1 and s2 are references to two strings, then which of the following is the correct way to compare the two references?

A. s1 is s2

B. s1 = s2

- C. s1.Equals(s2)
- D. strcmp(s1, s2)

Answer: Option C

19. Which of the following is the correct output of the C#.NET code snippet given below?

```
int[ , , ] a = new int[ 3, 2, 3 ];  
Console.WriteLine(a.Length);
```

- A. 20
- B. 4
- C. 18
- D. 10

Answer: Option C

Unit-III

20. Which of the following are NOT Relational operators in C#.NET?

- 1. >=
- 2. !=
- 3. Not
- 4. <=
- 5. <>=

- A. 1, 3
- B. 2, 4
- C. 3, 5
- D. 4, 5

Answer: Option C

21. Which of the following is NOT an Assignment operator in C#.NET?

- A. \=
- B. /=

C. *=

D. +=

Answer: Option A

22. A GUI:

- a.) uses buttons, menus, and icons.
- b.) should be easy for a user to manipulate.
- c.) stands for Graphic Use Interaction.
- d.) Both a and b.

Answer: d

23. Visual Studio .NET provides which feature:

- a.) debugging.
- b.) application deployment.
- c.) syntax checking.
- d.) All of the above..

Answer: d

24. What does IDE stand for?

- a.) Integrated Development Environment
- b.) Integrated Design Environment
- c.) Interior Development Environment
- d.) Interior Design Environment

Answer: a

25. Which is not a main component of the Visual Studio IDE?

- a.) Solution Explorer

- b.) Tool Box
- c.) Start Menu
- d.) Designer Window

Answer: c

26. Which does the solution explorer not display?

- a.) Form Properties
- b.) Reference Folder
- c.) Form File
- d.) Assemble File

Answer: a

27. The Button control can be activated:

- a.) programmatically through the click event.
- b.) by clicking the button with the mouse.
- c.) with the form's DefaultButton property.
- d.) Both a and b.

Answer: d

28. Which sequence of char data types is listed from lowest to highest?

- a.) a, A, z, Z
- b.) a, z, A, Z
- c.) A, a, Z, z
- d.) A, Z, a, z

Answer: d

29. The Boolean data type:

- a.) is unsigned.
- b.) has two states.
- c.) is displayed by the program as yes or no.

d.) Both a and b.

Answer: d

30. VB.Net identifiers:

a.) are case sensitive.

b.) can begin with an underscore.

c.) can begin with a number.

d.) Both a and b.

Answer: b

Unit-IV

31. The proper operator precedence, from first to last, is:

a.) logical, comparison, and arithmetic.

b.) arithmetic, comparison, and logical.

c.) arithmetic, logical, and comparison.

d.) comparison, arithmetic, and logical.

Answer: b

32. With A = False and B = True, which statement evaluates as True?

a.) A AND A

b.) A AND B

c.) B AND A

d.) B AND B

Answer: d

33. Which operator is evaluated first?

- a.) NOT
- b.) AND
- c.) XOR
- d.) OR

Answer: a

34. In the For...Next statement the default value for the Step is:

- a.) -1
- b.) 0
- c.) 1
- d.) 2

Answer: c

35. Which is a type of procedure found in VB.Net?

- a.) Event
- b.) Function
- c.) Sub
- d.) All of the above.

Answer: d

36. A sub procedure is valuable because it:

- a.) makes code easier to maintain.
- b.) splits the logic to solve a problem into small, manageable units.
- c.) limits the number of times the code can be accessed.
- d.) Both a and b.

Answer: d

37. Which method will return the number of elements in an array?

- a.) Dimension
- b.) Length
- c.) Number
- d.) Size

Answer: b

38. What is required to reference an element in an array?

- a.) Array name
- b.) Index value of the element
- c.) Element value
- d.) Both a and b.

Answer: d

39. Which method will arrange the elements of an array in alphabetical order?

- a.) Arrange
- b.) Assemble
- c.) Order
- d.) Sort

Answer: d

40. Which dialog control allows the user to zoom in on a document?

- a.) PrintDialog
- b.) PrintPreview
- c.) PageSetupDialog
- d.) Both a and b.

Answer: b

Unit-V

41. Which is not an ADO.NET DataAdapter Object?

- a.) OleDbDataAdapter
- b.) SqlDataAdapter
- c.) QueryDataAdapter
- d.) Both a and b.

Answer: c

42. Where does a web application reside?

- a.) Web client
- b.) Web server
- c.) Visual Studio .NET
- d.) Both a and b.

Answer: b

43. Which is an example of a web document?

- a.) Server script
- b.) Web page
- c.) Client browser
- d.) Both a and b.

Answer: d

44. A postback occurs when:

- a.) a browser posts a form to the server.
- b.) a user's action activates the handing of a server event.
- c.) a server posts a form to the client.

d.) Both a and b.

Answer: d

45. Which set of symbols are used to signify the presence of ASP.NET code?

a.) <@

b.) <#

c.) <\$

d.) <%

Answer: d

46. Which is the file extension used for an ASP.NET file?

a.) asn

b.) asp

c.) aspn

d.) aspx

Answer: d

47. What is the extension for a Visual Basic web form interface file?

a.) .asp

b.) .aspx

c.) .asp.vb

d.) .aspx.vb

Answer: b

48. When an ASP.NET file is placed on an IIS server and viewed through a browser, the resulting HTML page contains:

a.) all ASP.NET code.

b.) as much ASP.NET code as is in the ASP.NET file.

c.) a mix of ASP.NET and HTML code.

d.) all HTML code.

Answer: d

49. What is the extension for a Visual Basic web form code file?

a.) .asp

b.) .aspx

c.) .asp.vb

d.) .aspx.vb

Answer: d

50. Which HTML tag creates a link to another browser page?

a.) A href

b.) A ref

c.) An href

d.) An ref

Answer: a

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K2 Level Short Answers

Unit-I

1. How do you inherit a class into other class in C#?

Colon is used as inheritance operator in C#. Just place a colon and then the class name.

```
public class DerivedClass : BaseClass
```

2. Why can't you specify the accessibility modifier for methods inside the interface?

In an interface, we have virtual methods that do not have method definition. All the methods are there to be overridden in the derived class. That's why they all are public.

3. How can we set class to be inherited, but prevent the method from being over-ridden?

Declare the class as public and make the method sealed to prevent it from being overridden.

4. How we can create an array with non-default values?

We can create an array with non-default values using `Enumerable.Repeat`.

5. Is C# code is managed or unmanaged code?

C# is managed code because Common language runtime can compile C# code to Intermediate language.

6. Explain Namespaces in C#.

They are used to organize large code projects. "System" is the most widely used namespace in C#. We can create our own namespace and use one namespace in another, which are called Nested Namespaces. They are denoted by the keyword "namespace".

7. Explain Abstraction.

Abstraction is one of the OOP concepts. It is used to display only the essential features of the class and hides the unnecessary information.

8. Name some properties of Array.

Properties of an Array include:

- Length – Gets the total number of elements in an array.
- IsFixedSize – Tells whether the array is fixed in size or not.
- IsReadOnly – Tells whether the array is read-only or not.

9. Explain the features of C#?

Below are some of the features supported in C# -

- Constructors and Destructors
- Properties
- Passing Parameters
- Arrays
- Main
- XML Documentation and
- Indexers

10. Explain the types of comments in C#?

Below are the types of comments in C# -

- Single Line Comment Eg : //
- Multiline Comments Eg: /* */
- XML Comments Eg : ///

Unit-II

11. Why to use “using” in C#?

“Using” statement calls – “dispose” method internally, whenever any exception occurred in any method call and in “Using” statement objects are read only and cannot be reassignable or modifiable.

12. Why to use keyword “const” in C#? Give an example.

“Const” keyword is used for making an entity constant. We can’t reassign the value to constant.

```
Eg: const string _name = "Test";
```

13. Explain Jagged Arrays in C#?

If the elements of an array is an array then it’s called as jagged array. The elements can be of different sizes and dimensions.

14. How we can sort the array elements in descending order in C#?

“Sort()” method is used with “Reverse()” to sort the array in descending order.

15. Which are the loop types available in C#?

Below are the loop types in C# -

For
While
Do.. While

16. Name the compiler of C#?

C# Compiler is – CSC.

17. Explain usage of DirectoryInfo class.

The DirectoryInfo class is derived from the FileSystemInfo class. It has various methods for creating, moving, and browsing through directories and subdirectories. This class cannot be inherited.

18. Explain usage of FileInfo class.

The FileInfo class is derived from the FileSystemInfo class. It has properties and instance methods for creating, copying, deleting, moving, and opening of files, and helps in the creation of FileStream objects. This class cannot be inherited.

19. Which namespace are used for accessing the data?

System.Data namespace is used for accessing and managing data from the required data source. This namespace deals only with the data from the specified database.

20. How many languages are supported by .Net?

Following are the languages supported by VB.Net:

- C#
- VB.Net
- COBOL
- Perl

Unit-III

21. How a base class method is hidden?

Hiding a base class method by declaring a method in derived class with keyword new. This will override the base class method and old method will be suppressed.

22. How is method overriding different from method overloading?

When overriding a method, you change the behavior of the method for the derived class. Overloading a method simply involves having another method with the same name within the class.

23. How do you convert a string into an integer in .NET?

```
Int32.Parse(string)  
Convert.ToInt32()
```

24. Which namespaces are used for data access?

```
System.Data  
System.Data.OleDb  
System.Data.SqlClient
```

25. Which is the base class for all the classes in .NET Framework?

The System.Object class

26. List Controls in Windows Forms to Select Data from a list of VB.NET.

The Windows Forms Controls to Select Data from a List are as follows:

1. CheckedListBox
2. ComboBox
3. DomainUpDown
4. List Box
5. List View

27. How do you define a Class in VB.NET?

```
Example:  
Class Demo  
Public Name as String  
End Class
```

28. Explain Private Access Modifier in VB.NET.

Private can be used only at module level. This means you can declare a private element inside a module, class or structure but not at a level of a source file or namespace, inside an interface or in a procedure.

29. List the Dialog Boxes used in Windows Forms of VB.NET.

The Windows Forms Dialog Boxes are as follows:

1. ColorDialog
2. FontDialog
3. OpenFileDialog
4. PrintDialog
5. PrintPreviewDialog
6. SaveFileDialog

30. List features which are common to all .NET languages?

Garbage Collection is a feature that is common to all .NET languages. Garbage Collection feature stops / pauses the application for a few seconds before restarting it. The .NET Framework's Garbage Collection manages the allocation and release of the memory to your applications.

Unit-IV

31. Why the Redim variable in VB.NET is used ?

In VB.NET, Redim is used to re-declare and manipulate or modify the Array. Once we declare an Array with a dimension of 10 and if later we need to redefine the size, ReDim functionality can be used.

32. Why MDI Forms are used in VB.NET?

MDI represents Multiple Document Interface. It is an application in which we can view and work with several documents at once. Example of an MDI application is Microsoft Excel. Visual Studio .NET provides great support for working with MDI Forms and Applications.

33. Mention the execution process for managed code.

A piece of managed code is executed as follows:

- Choosing a language compiler
- Compiling the code to MSIL
- Compiling MSIL to native code
- Executing the code

34. Can you specify the accessibility modifier for methods inside the interface?

All the methods inside an interface are always public, by default. You cannot specify any other access modifier for them.

35. Is it possible for a class to inherit the constructor of its base class?

No, a class cannot inherit the constructor of its base class.

36. In which namespace, all .NET collection classes are contained?

The System.Collections namespace contains all the collection classes.

37. Do events have return type?

No, events do not have return type.

38. How can you prevent a class from overriding in VB.NET?

You can prevent a class from overriding in VB.NET by using the NotInheritable keyword.

39. Name the parent class for all Windows controls.

The Control class or System.Windows.Forms.Control class is the parent class for all Window controls.

40. Which architecture does Datasets follow?

Datasets follow the disconnected data architecture.

Unit-V

41. Name the method that needs to be invoked on the DataAdapter control to fill the generated DataSet with data?

The Fill() method is used to fill the dataset with data.

42. How would you connect to a database by using .NET?

The connection class is used to connect a .NET application with a database.

43. Which adapter should you use, if you want to get the data from an Access database?

OleDbDataAdapter is used to get the data from an Access database.

44. How can we identify that the Page is Post Back?

Page object has an "IsPostBack" property, which can be checked to know that is the page posted back.

45. Which is the parent class of the Web server control?

The System.Web.UI.Control class is the parent class for all Web server controls.

46. Can you set which type of comparison you want to perform by the CompareValidator control?

Yes, by setting the Operator property of the CompareValidator control.

47. Which method is used to force all the validation controls to run?

The Page.Validate() method is used to force all the validation controls to run and to perform validation.

48. How does a content page differ from a master page?

A content page does not have complete HTML source code; whereas a master page has complete HTML source code inside its source file.

49. Which method is used to post a Web page to another Web page?

The Response.Redirect method is used to post a page to another page, as shown in the following code snippet: Response.Redirect("DestinationPageName.aspx");

50. Which data type does the RangeValidator control support?

The data types supported by the RangeValidator control are Integer, Double, String, Currency, and Date.

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K3 Level Questions

UNIT-I

1. Examine the functions of Common Language Runtime in .NET framework.
2. Examine the role of Common Type System in .NET framework.
3. List the different ways of passing parameters to a method in C#.
4. Distinguish between ref and out parameters in C# with example.
5. Distinguish between dynamic type variables and object type variables in C#.
6. Classify the types of literals in C#.
7. Examine the uses of base class libraries in .NET.
8. Classify the different types of operators in C#.
9. Examine the various Decision making and branching statements in C#.
10. Examine the various Decision making and looping statements in C#.

UNIT-II

11. Compare VB6 with VB.NET.
12. Compare functions and subroutines in VB.NET with suitable examples.
13. Examine Properties in VB.NET with examples.
14. Examine the concept of method overriding in VB.NET.
15. List the datatypes in VB.NET.
16. List the types of variables in VB.NET.
17. Examine the operators in VB.NET.
18. Classify the types of Arrays in VB.NET.
19. Compare the different types of looping statements in VB.NET.
20. Examine the Select Case statement in VB.NET with an example.

UNIT-III

21. List the various enumerations of MessageBoxButton with examples.
22. Distinguish between MessageBox and InputBox.
23. List and explain the various dialog boxes in CommonDialog control.
24. Examine the Try... Catch... Finally... statement with an example.
25. Compare File class with FileInfo class. List their uses.
26. Compare Directory class with DirectoryInfo class. List their uses.
27. Examine the Path class. List its methods and their uses.
28. Compare the different states of a thread. Explain them with examples.
29. Examine the implementation of Message Queues in VB.NET.
30. Examine InputBox class. Write the applications of InputBox in a program.

UNIT-IV

31. Examine the process of compiling in VB.NET.
32. Examine the process of debugging in VB.NET.
33. List the different data providers in ADO.NET framework.
34. Distinguish between Datareader and Dataset.
35. List all the components of ADO.NET data connection.
36. Distinguish between OLEDB and SQLClient Providers.
37. Examine Windows Forms. How do you customize a form by using its properties?
38. List and explain the VB.NET controls i). Button ii). TextBox iii). Combobox.
39. Distinguish between a TextBox control and a RichTextBox control.
40. Distinguish between an MDI form and a standard form.

UNIT-V

41. List the events in a page life cycle.
42. Examine the Required field Validator control with example.
43. Examine the Compare Validator control with example.
44. Examine the Custom Validator control with example.
45. List and explain the different Session state management options available in ASP.NET.
46. Distinguish between HtmlInputCheckBox control and HtmlInputRadioButton control.
47. List the advantages of the code-behind feature.
48. Examine IIS. Why is it used?
49. Examine ValidationSummary control. Where is it used?
50. Distinguish between authentication and authorization in ASP.NET.

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K4 & K5 Level Questions

UNIT-I

1. Examine .NET framework. Explain its various components with neat sketch.
2. Elucidate the different datatypes in C#.
3. Explain about method overloading in C# with an example.
4. Categorize the Arrays in C#.
5. Explain the different types of applications in .NET with suitable examples.

UNIT-II

6. Explain concept of Inheritance in VB.NET.
7. Examine the concept of Encapsulation in VB.NET.
8. Explain about method overloading in C# with an example.
9. Examine the concept of Polymorphism in VB.NET.
10. Decide how to select the suitable control statements in conditional logic for writing programs in VB.NET.

UNIT-III

11. Explain the applications of MessageBox. List all its enumerations with examples.
12. Categorize various stream classes used for File Input/Output in VB.NET.
13. Explain FileIO. List the various classes and their methods used for handling the FileIO.
14. Explain about classes and objects in VB.NET.
15. Elucidate Multithreading in VB.NET. List its advantages.

UNIT-IV

16. Explain the various classes used for database connection in ADO.NET.
17. Explain about VB.NET IDE. List its various components and their applications.
18. List any ten controls in VB.NET. Explain their properties and methods.
19. Explain MenuStrip control. Name the classes used to handle standard menu.
20. Explain about Irregular forms in VB.NET.

UNIT-V

21. Examine an ASP.NET Web Form with an example.
22. Explain about session management in ASP.NET.
23. List the events that happen when a client requests an ASP.NET page from IIS server?
Explain them.
24. Explain login controls in ASP.NET.
25. Elucidate how Cookies work. Write an example program that uses cookies.