

Q. 1) What is .NET Framework? What JIT do?

.NET Framework

VB.NET is one of the component of .NET Framework.

This framework provides support for software development and operating system supports in windows.

At the base of .NET framework is the **common language runtime (CLR)**.

When you create a VB.NET application your code is compiled into intermediate language also known as Microsoft intermediate language (IL or MSIL) much same as byte codes in JAVA.

When you run the application, IL is translated into a binary code that your computer can understand with the help of **JIT (Just in time compiler)**

End Ques. 1

Q. 2) What are the Features of VB.NET?

Or

**What are the advantages of VB.NET on
Other languages?**

Or

**Difference b/w VB.NET and .NET
Languages**

Ans.

- 1.** It's all OOP's now. All data items are objects now. Even Integers and other primitive data types are based on system.object class
- 2.** You can now overload properties, methods and procedures.
- 3.** VB now supports exception handling. It uses try, catch, block to handle run time errors.
- 4.** VB.NET now supports multithreaded applications.

5. It also supports constructors and destructors.
6. There are three new data types in VB.NET-, the char data type is an unsigned 16 bit type, the short data type is a signed 16 bit integer, finally the decimal data type is a 96 bit signed integer.
7. VB.NET is now strongly typed. This means you must declare all variables by default, and you can't assign one data type to another.
8. There are number of new compound arithmetic operations, such as +=, -= , *= , /= , \=, ^= and &= .
9. Collection has been replaced by system.collections.
10. The new bitwise operators are **BitAnd** , **BitOr**, **BitNot** ,and **BitXor** .

End Ques. 2

Q. 3) What is IntelliSense?

Ans. IntelliSense is responsible for those boxes that open as you write your code, listing all the possible option and even completing your typing for you.

It has a number of options as follows:

- 1. List Members-** List the members of a object.
- 2. Parameter Info-** List the arguments of procedure calls.
- 3. Complete word-** It completes typed words.
- 4. Automatic Brace Matching-** Add parenthesis or braces as needed.

End Ques. 3

Q. 4) What is code editor?

Ans. The code editors let you edit the code for a component and you can see a code designer. The two drop down list boxes at the top of code designer- the one on the left let you select objects code you are working with, and the right side will help you to select the part of the code that you want to work on.

End Ques. 4

Q. 5)What is solution explorer?

Ans. By solution we mean that it is a collection of projects.

This tools displays a hierarchy- with the solution at the top of hierarchy, the projects one step down in the hierarchy and the items in each project as the next step down.

You can set the various properties of items in a project by selecting them in solution explorer.

End Ques. 5

Q. 6)What is properties Windows?

Ans. The Properties Window- It is a dynamic help window. You can set properties of various objects in Visual Basic to customize them.

For eg→Set the text property of a button in the project to “Login” in order to make that text appear in the button.

End Ques. 6

Q. 8) What are the option and import statements?

Ans.

- The option statement sets a number of options for the rest of your code.
- The import statements import namespaces into your code, making them more rapidly available.

Option Statements

These option statements helping prevent syntax and logic errors. Few of them are as below:

- 1. Option explicit:** Set to on or off. On is the default. Requires declaration of all the variables before they are used.
- 2. Option compare:** Set to binary or text. This specifies if strings are

compared using binary or text comparison operations.

- 3. Option Strict:** Set to on or off. Off is the default. When you assign a value to a variable of another type Visual Basic will consider that an error if this option is ON.

Import Statement

You can use this statement to import a namespace so you don't have to list the entire namespace when you refer to them.

For eg. → The **WriteLine** method is the part of **System.Console** namespace.

End Ques. 8

Q. 9)What is Windows Form?

Ans. By Form we mean that it is a way to receive input or to display output to the user.

The whole power of VB has been that you can develop forms visually adding controls and other items from the toolbox.

One can see form in a form designer in the VB IDE(Integrated development environment)

The main area of a form—The area where everything takes place is called the client area. The whole form is surrounded by a border.

End Ques. 9

Q. 10) What is Windows MDI Forms?

Ans. Beside standard forms, VB also supports multiple document interfaces.

MDI forms closely resembles a standard form with one major difference that is an MDI form acts as a kind corral for other forms.

An MDI form, also called an MDI parent form, that can display MDI children in it.

End Ques. 10

Q. 11)What do you mean by handling events?

Ans. Windows user interface programming is event-driven in general, rather than long blocks of code executing by themselves, you normally place your code in event-handling procedures that react to the users actions.

Forms supports many events such as the load event, which is first loaded and about to be displayed.

End Ques. 11

Q. 12) Explain VB instruction set/statements?

Ans. A VB statements is a complete instruction it can contain:

1. **Keywords**—Words reserved for Visual Basic's use.
2. **Operators**—Symbols used to perform operations, like +, which performs addition Operations.
3. **Variables**—Symbolic names given to values stored in memory and declared with the **Dim** keyword.
4. **Literal values**—Simple values, like 5 or "Hello."
5. **Constants**— The same as variables, except that constants are assigned a value that cannot then be altered.
6. **Expressions**—Combinations of terms and/or keywords that yield a value.

End Ques. 12

Q. 13) Explain different types of access specifiers in VB.NET?

Ans.

- 1.Public:** Gives variable public access, which means there are no restrictions on their accessibility.
- 2.Protected:** It means that they are accessible only from within their own class or from a class derived from that class.
- 3.Friend:** It means that they are accessible from within the program that contains their declaration as well as anywhere else in the same assembly.
- 4.Private:** It means they are accessible only from within their declaration context (usually a class).
- 5.Static:** It means variables retain their values, even after the procedure in which they were declared ends.
- 6.Shared:** It means it is not associated with a specific instance of a class or structure but can be shared across many instances.
- 7.New:** Means you want to create a new object immediately. If you use the new keyword when declaring an object variable, a new instance of the object is created.

End Ques 13

Q. 14) Visual Basic data types.

There is a wide range of data-types available following are some new data-types available in VB.NET

1. **Boolean:**
Size: 2 Bytes
Value: True or False
2. **Byte:**
Size: 1 Byte
Value: 0-255
3. **Char:**
Size: 2 Bytes
Value: 0-65535
4. **Date:**
Size: 8 Bytes
Value: Jan 1,0001 to 31 Dec,9999
5. **Decimal:**
Size: 16 bytes
Value: -2^{128} to 2^{127}
6. **Double:**
Size: 8 bytes
Value: -2^{64} to 2^{63}

- 7. Integer:**
Size: 4 bytes
Value: - 2^{32} to 2^{31}
- 8. Long:**
Size: 8 Bytes
Value: - 2^{64} to 2^{63}
- 9. Object:**
Size: 4 Bytes
Value: Any value that you want to store
- 10. Short:**
Size: 2 Bytes
Value: -32768 to 32767
- 11. String:**
Size: 2 Bytes
Value: 0 to approximately 2 billion Unicode characters.

End Ques. 14

Q. 15) Explain the loops available in VB.NET?

Ans.

- 1. Do-Loop** → This loop keeps executing the statements while or until condition is true.
- 2. For Loop** → It is the most popular loop among all visual basic loops. The do loop does not need a loop index, but the loop for loop does. A loop index counts the number of loop iterations.
- 3. For Each Next Loop** → This loop is used to iterate over elements in an array or collection. It implicitly/automatically loops over all the elements in the array or collection.
- 4. While Loop** → This loops keep looping while the condition they test remains true, so we need a **While** loop when we have a condition that will become false when we want to stop looping.
- 5. With Statement** → It is not a loop but can be used as a loop. You use the statement to execute statements using a particular object.

End Ques. 15

Q. 16) Explain procedures and sub-procedures and function?

Ans. Procedures: Procedures are made up of visual basic statements that when called are executed. After the call is finished, control returns to the calling statements. You can pass data to procedures and the code in the procedures can work on that data.

There are two types of procedures in VB.NET:

Sub-procedures and functions:

Sub-procedures do not return a value, while functions do.

Sub-procedures →

Syntax:

Sub Sub-procedure name

Statements

End Sub

```
Example→  
Sub main()  
System.Console.WriteLine("Hello From VB")  
End Sub
```

Functions→

Syntax:

```
Function Function name as the datatype  
Statements  
End Function
```

Example:

```
Public Function My Function(as string)  
Return "Hello From VB"  
End Function
```

End Ques. 16

Q. 17 What is exception handling and explain different ways of exception handling?

Ans. Exception Handling → Exception are just runtime errors. Exception occurs when a program is running as opposed to syntax errors. You can trap such exceptions and recover from them, rather than letting them being your program to inglorious end.

There are two ways for handling errors that occur at runtime in VB.NET-with structures exceptional or unstructured exception handling.

Unstructured Exception Handling → The old error handling in VB 6 and before is now called unstructured exception handling.

On error goto statements is used to transfer control in case there is any exception. You create labels in your code with the label name followed by a colon(:) and the exception handling code follow the label.

Structured Exception Handling → VB supports structured exception handling. VB now used an enhanced version of the try catch finally statement to prevent exceptions.

Syntax →

Try

Statements

Catch e as exception

Statements

End Try

Example:

Dim num1=5,num2=0,num3 as integer

Try

Num3=num1/num2

System.Console.WriteLine("The as is {0}" num3)

Catch e as exception

System.Console.WriteLine("e to string")

End Try

End Ques. 17

Q. 18) How to create a Function?

Functions→

Syntax:

Function Function name as the datatype

Statements

End Function

Example→

```
Dim num as integer=2
```

```
System.Console.WriteLine("{0}+{1}+{2}",num,  
num,add(num,num))
```

```
Function add(ByVal num1 as integer, By val  
num 2 as integer) as long
```

```
Return num1+num2
```

```
End Function
```

End Ques. 18

Q. 19) Please Specify Optional Argument?

Specifying Optional Argument → You can make arguments optional in VB.NET by using the optional keyword. If you make one argument optional, all the following arguments must also be optional. And you can specify a default value for each argument.

Example →

```
Sub main()
```

```
Displaymessage()
```

```
End Sub
```

```
Sub Displaymessage(Optional ByVal str as  
string= "Hello BCA")
```

```
System.Console.WriteLine(str)
```

```
End sub
```

End Ques. 19

Q. 20) What is Windows Form?

Ans. In VB.NET the windows form is in the `system.windows.form.namespace`. Windows Forms are used to receive or display information to the user. You can see a form in a form designer in the visual basic IDE.

The form shares a lot of properties and methods that control do

The Form class has one class property `ActiveForm`, which holds the currently active form for the entire application. If you want to determine what windows has the focus, use the `active form` property

Similarly there are number of properites attached with the single object.

End Ques. 20

Q. 21)What is Windows MDI Forms

Ans. Besides standard forms VB also supports multiple document interface forms. You can see that an MDI form closely resembles a standard form. An MDI form also called an MDI parent form, can display MDI children in it.

End Ques. 21

Q. 22) What do you mean by event handling?

Ans. Whenever a control is clicked the control click event is invoked. This sub-procedure is passed the object that caused the event (For eg: button object) and an eventargs object that has more information about the event is passed.

For example →

```
Private Sub Button_Click (ByVal sender  
as system.object, ByVal e as  
system.eventargs)Handles Button.click  
statements  
End sub
```

The handle Button.Click passed at the end, indicates that this subprocedure handles the click event of button.

End Ques. 22

Q. 23) What is MsgBox Function?

Ans. In VB.NET you can use msgbox to display information on the screen.

Following are the arguments you can pass to this function:

1. Prompt → A string expression displayed as message in the dialog box.
2. Buttons → The sum of values specifying the number and type of buttons to display the icon style to use, the identity of the default button etc.
3. Title → String displayed on the title of the dialog box.

End Ques. 23

Q. 24) What are textboxes and rich-textboxes?

Or

Difference between Textboxes and richtextboxes?

Ans.

Textboxes → Every window user is familiar with textboxes which are used to enter text. Textboxes can be multi-lined, have scroll bars, read-only and have many other attributes. These text boxes are used to get input from the user or to display text.

Rich-Textboxes → It is used for displaying, entering and manipulating rich text with formatting.

This control does everything the textbox control does, but in addition, it can display fonts, colors and links; load text and images from a file; undo and redo operations etc.

End Ques. 24

Q. 25) Explain

1) Labels

2) Link labels

Ans.

1) Labels: Labels are used in VB to display read only text. However you can make textboxes read-only by changing its property. But labels can look much better than a textbox on some occasions.

2) Link labels: These are the labels through which you can create a hyperlink to some another form or process.

End Ques. 25

Q. 26) What are buttons?

Ans. Buttons are used in VB.NET for creating and handling an event. Buttons can be clicked with the mouse or with the enter key, If the buttons has the focus.

End Ques. 26

Q. 27) Explain:

1) Checkboxes

2) Radio Buttons

Ans.

1) Checkboxes → These are familiar controls—you click a checkbox to select it, and click it again to deselect it. When you select a checkbox, a check appears in it, indicating that the box is indeed selected.

2) Radio Buttons → Radio buttons, also called option buttons, are similar to checkboxes—the user can select and deselect them—except for two things: they are round where checkboxes are square, and you usually use radio buttons together in groups.

Or

You can write similar as in HTML

End Ques. 27

Q. 28) Explain:

1) Panels

2) Group Boxes

Or

What is the difference between panels and group boxes?

Ans.

1) Panels → Panels are used to group other control, it is used usually to divide a form into regions by function. For Example → You have a menu form that lets the user select drinks in one panel and sandwich in another panel.

2) Group boxes → Like panels, group boxes are used to provide a grouping for other controls. **The only difference is that group boxes display captions and panels can have scroll bars.**

End Ques. 28

Q. 29) Explain:

1) List Boxes

2) Checked List Boxes

Or

Difference between List Boxes and Checked List Boxes

Ans.

1) List Boxes → It display a list of items from which the user can select one or more items. If there are too many items you can use scroll bars.

2) Checked List Boxes → These boxes are similar to List Boxes, **Except that they also support a checkbox.**

End Ques. 29

Q. 30) What are Picture Box?

Ans. Picture Box → These are used to display graphics from a bitmap, icon, jpeg, gif or other image file type. You can also set picture box, size more to the following properties.

- 1) Normal
- 2) Stretch image
- 3) Auto Size
- 4) Centre image

End Ques. 30