

P.G DEPARTMENT OF COMPUTER APPLICATIONS

19PMC319 - Dot Net Frameworks

K1 LEVEL QUESTIONS

Unit-1

1. Which of the following components of the .NET framework provide an extensible set of classes that can be used by any .NET compliant programming language?
A. Net class libraries
B. Common Language Runtime
C. Common Language Infrastructure
D. Component Object Model
2. Which of the following .NET components can be used to remove unused references from the managed heap?
A. Common Language Infrastructure
B. CLR
C. Garbage Collector
D. Class Loader
3. CLR is the .NET equivalent of _____
A. Java Virtual Machine
B. Common Language Runtime
C. Common Type System
D. Common Language Specification
4. Which of the following is the root of the .NET type hierarchy?
A. System.Object
B. System.Base
C. System.Root
D. System.Parent
5. Which of the following statements is correct about Managed Code?
A. Managed code is the code that runs on top of Windows.
B. Managed code is the code that is written to target the services of the CLR.
C. Managed code is the code where resources are Garbage Collected.
D. Managed code is the code that is compiled by the JIT compilers.
6. The smallest unit to which one can associate a version number in .NET is
A. CLR
B. Assembly

- C. Namespace
 - D. None of the Above
7. Select the keyword used to refer the name space in our code in VB.Net
- A. Using
 - B. Package
 - C. Imports**
 - D. None of the above
8. Boxing converts a value type on the stack to an _____ on the heap.
- A. Bool type
 - B. Instance type
 - C. Class type
 - D. Object type**
9. Visual Studio .NET provides which feature:
- A. debugging
 - B. application deployment
 - C. syntax checking
 - D. All of the above**
10. Which of the following is not correct about the value types and reference types in VB.NET?
- A. Dim statement is used to create a variable that represents a value type
 - B. Data associated with a value type is allocated on the stack**
 - C. Reference types must be instantiated after declaration
 - D. Data associated with a reference type is allocated on the stack

Unit-2

11. Which of the following control doesn't receive the focus and doesn't have a TabIndex property?
- A. PictureBox**
 - B. LablControl
 - C. ListBox
 - D. TabControl control
12. Which of the following class does not belong to Collection namespace

- A. ArrayList
 - B. Queue
 - C. DictionaryList**
 - D. Stack
13. Which of the following is not the member of System.Collections?
- A. BitArray
 - B. Enum**
 - C. Queue
 - D. Stack
14. What is the purpose of Invoke Method?
- A. Used to call any procedure
 - B. Used to call the procedure through Delegate variable**
 - C. Both
 - D. None
15. How you refer the parent class in VB.Net
- A. Parent
 - B. MyBase**
 - C. Super
 - D. None
16. Can a toolbar display text instead of pictures in the buttons?
- A. No, a toolbar can only display images
 - B. No, a toolbar can only display text
 - C. Yes, a toolbar can display text, images, or both.**
 - D. None of these
17. How do you Create Constructors in VB.NET?
- A. Create a method and name it with the same name as class name
 - B. Create a method and which is named as New**
 - C. Create a method and which is named as Initialize
 - D. None of the above
18. Which language is not a true object-oriented programming language?
- A. VB.NET
 - B. VB 6**
 - C. C++
 - D. C#

19. Which are the standard prefixes for the Button and Combo box controls respectively?
- A. btn and chb
 - B. btn and cbo**
 - C. bto and chb
 - D. bto and cbo
20. Which is not a property of the Common control class?
- A. Show**
 - B. BackColor
 - C. Font
 - D. ForeColor

Unit-3

21. The default property for a text box control is
- A. Text**
 - B. Enable
 - C. Multiline
 - D. Password char
22. Which of the following object is used by the DataAdapter to retrieve the data from database?
- A. Command**
 - B. Connection
 - C. DataReader
 - D. None
23. Which is the base class for TypedDataset
- A. DataReader
 - B. Dataset**
 - C. DataAdapter
 - D. None
24. Which is the best to retrieve Read-Only, Forward-only stream of data from database
- A. Data Set
 - B. Typed Data Set
 - C. DataReader**
 - D. None
25. Most of the functionality of the text box control is simply inherited from the class, which is also a base class for the rich text box control.
- A. TextBoxControl
 - B. RichTextBox

C. TextBoxBase

D. TextBox

26. Which of the following is NOT the public property of RichTextBox Objects.
- A. DetectURLs
 - B. DetectText**
 - C. BulletIndent
 - D. RightMargin
27. Which among the following is NOT an exception?
- A. Stack Overflow
 - B. Arithmetic Overflow or underflow
 - C. Incorrect Arithmetic Expression**
 - D. All of the mentioned
28. Which of these keywords must be used to monitor exceptions?
- A. try**
 - B. finally
 - C. throw
 - D. catch
29. Visual Studio .NET provides which feature:
- A. debugging
 - B. application deployment**
 - C. syntax checking
 - D. All of the above**
30. is built on a disconnected data model that uses snapshots of data that are isolated from the data source.
- A. DAO
 - B. RDO
 - C. ADO
 - D. ADO.NET**

Unit-4

31. Which of the following object is not an ASP component?
- A. LinkCounter**
 - B. Counter
 - C. AdRotator
 - D. File Access
32. The first event triggers in an aspx page is.
- A. Page_Init()**
 - B. Page_Load()
 - C. Page_click()
33. Difference between Response.Write() and Response.Output.Write().

- A. Response.Output.Write() allows you to buffer output
 - B. Response.Output.Write() allows you to write formatted output**
 - C. Response.Output.Write() allows you to flush output
 - D. Response.Output.Write() allows you to stream output
34. **How do we create a FileSystemObject?**
- A. Server.CreateObject("Scripting.FileSystemObject")**
 - B. Create("FileSystemObject")
 - C. Create Object:"Scripting.FileSystemObject"
 - D. Server.CreateObject("FileSystemObject")
35. **What class does the ASP.NET Web Form class inherit from by default?**
- A. System.Web.UI.Page**
 - B. System.Web.UI.Form
 - C. System.Web.GUI.Page
 - D. System.Web.Form
36. **We can manage states in asp.net application using**
- A. Session Objects
 - B. Application Objects
 - C. Viewstate
 - D. All of the above**
37. **Attribute must be set on a validator control for the validation to work.**
- A. ControlToValidate**
 - B. ControlToBind
 - C. ValidateControl
 - D. Validate
38. **File extension used for ASP.NET files.**
- A. .Web
 - B. .ASP
 - C. .ASPX**
 - D. None of the above
39. **Default Session data is stored in ASP.Net.**
- A. StateServer
 - B. Session Object
 - C. InProcess**

D. all of the above

40. **How do you get information from a form that is submitted using the "post" method?**

A. Request.QueryString

B. Request.Form

C. Response.write

D. Response.WriteLine

Unit-5

41. The ----- Language allows more than one method in a single class

A. C#

B. J#

C. C++

D. C

42. In C#, a subroutine is called a _____.

A. Function

B. Metadata

C. Method

D. Managed code

43. All C# applications begin execution by calling the _____ method.

A. Class()

B. Main()

C. Submain()

D. Namespace

44. A _____ is an identifier that denotes a storage location.

A. Constant

B. Reference type

C. Variable

D. Object

45. _____ causes the loop to continue with the next iteration after skipping any statements in between.

A. Loop

B. Exit

C. Break

D. Continue

46. **Arrays in C# are _____ objects.**

A. Reference

B. Logical

C. Value

D. Arithmetic

47. **The methods that have the same name, but different parameter lists and different definitions is called_____.**

A. Method Overloading

B. Method Overriding

C. Method Overwriting

D. Method Overloading

48. **Inheritance is _____ in nature.**

A. Commutative

B. Associative

C. Transitive

D. Iterative

49. **The reason that C# does not support multiple inheritances is because of _____.**

A. Method collision

B. Name collision

C. Function collision

D. Interface collision

50. **C# doesnot support:**

A. abstraction

B. polymorphism

C. multiple inheritance

D. inheritance

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K2 LEVEL QUESTIONS

Unit-1

1. What is vb.net?

- a. vb.net is a windows-based programming language.it supports oops concept

2. What is the base class of .net?

- a. system.object

3. What is difference between namespace and assembly?

namespace is a collection of different classes. whereas an assembly is the basic building blocks of the .net framework.

4. What is intermediate language?

microsoft intermediate language(msil or il) is the cpu -independent instruction set into which .net framework programs are compiled. it contains instructions for loading, storing initializing, and calling methods on objects.

5. What is common language runtime?

clr also known as common language run time provides a environment in which program are executed, it activate object, perform security check on them, lay them out in the memory, execute them and garbage collect them.

6. What is common type system?

the common type system is a rich type system, built into the common language runtime, which supports the types and operations found in most programming languages.

7. What is common language specification?

The common language specification is a set of constructs and constraints that serves as a guide for library writers and compiler writers.

8. What are class access modifiers?

Access modifiers are keywords used to specify the declared accessibility of a member or a type. this section introduces the four access modifiers :

§ public

§ protected

§ internal

§ protected internal

§ private

9. What are the important components of .Net?

The components of .Net are Common language run-time, .Net Class library, Application domain, Common Type System, .Net framework, Profiling, etc. However, the two important components are **Class library and Common Language Runtime**.

CLR provides building blocks for a wide variety of applications. The class library consists of a set of classes that are used to access the common functionality. The functionality can be shared among different applications.

10. What is MSIL?

MSIL stands for **Microsoft Intermediate Language**.

MSIL provides instructions for calling methods, initializing and storing values, operations such as memory handling, exception handling and so on. All .Net codes are first compiled to IL.

Unit-2

11. Explain how can you create and use an array in .NET?

In .NET, you can create array by following ways,

- Declaring a reference to an array
- Create array of ten Int32 elements
- Creating a 2-dimensional array
- Creating a 3-dimensional array

12. Mention what is user-defined data type?

A user-defined data type is a named data type created by the user. It can be a structured type which has a sequence of named attributes that each has a type, or It can be a distinct type sharing a common representation with some built-in data type. Based on this it can be categorized as,

Distinct type
Reference type
Structured type

13. What is jagged array?

These types of multidimensional arrays have each sub-array as independent arrays of different lengths. For Jagged arrays, you need to use a separate set of square brackets.

14. What is an arraylist?

ArrayList is a non-generic type of collection in C#. It can contain elements of any data types. It is similar to an array, except that it grows automatically as you add items in it. Unlike an array, you don't need to specify the size of ArrayList.

15. What do you mean by Hash table?

Hashtable represents a collection of key/value pairs which maps keys to value. Any non-null object can be used as a key but a value can. We can retrieve items from **hashTable** to provide the key .

16. Define Winforms?.

Windows Forms is a Graphical User Interface(GUI) class library which is bundled in *.Net Framework*. Its main purpose is to provide an easier interface to develop the applications for desktop, tablet, PCs. It is also termed as the **WinForms**.

17. What is sorted list?.

The **SortedList** class represents a collection of key-and-value pairs that are **sorted** by the keys and are accessible by key and by index. A **sorted list** is a combination of an array and a hash table. It contains a **list** of items that can be accessed using a key or an index.

18. What is a Garbage Collector?

Garbage collection is a feature of .Net to free the unused code objects in the memory.

19. What is a base class and derived class?

A class is a template for creating an object. The class from which other classes derive fundamental functionality is called a base class. For e.g. If Class Y derives from Class X, then Class X is a base class.

The class which derives functionality from a base class is called a derived class. If Class Y derives from Class X, then Class Y is a derived class.

20. What is JIT?

JIT stands for **Just In Time**. JIT is a compiler that converts Intermediate Language to a Native code.

The code is converted into Native language during execution. Native code is nothing but hardware specifications that can be read by the CPU. The native code can be stored so that it is accessible for subsequent calls.

Unit-3

21. What is dialog box?

A dialog box is a secondary window that allows users to perform a command, asks users a question, or provides users with information or progress feedback.

22. What is the Default Size of Integer DataType in VB.NET?

The Default Size of Integer DataType is 32 Bits in VB.NET

23. Enlist 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

24. What is Redim variable in VB.NET used for?

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.

25. What are MDI Forms 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.

26. Enlist the various Mouse Events in VB.NET.

The list of Mouse Events in VB.NET are as follows:

1. Click
2. MouseClick

- 3. MouseDown
- 4. MouseWheel
- 5. MouseHover

27. What are Data Adapters in ADO.NET?

ADO.NET uses a data adapter as a bridge between the dataset and the datasource which is the actual database. Data Adapter provides the Fill() methods to retrieve data from the database and populate dataset. ADO.NET uses a data adapter object to mediate between the dataset object and the database.

28. What is an ADO.Net?

ADO.Net is commonly termed as ActiveX Data Objects which is a part of .Net Framework. ADO.Net framework has set of classes which are used to handle data access by connecting with different databases like SQL, Access, Oracle, etc...

29. What is Data view?

Data view is the representation of data in various formats and it can be requested by the users. Data can be exposed in different sort orders or filter on the user condition with the help of Data view. Data Customization is also possible through Data View.

30. What is Data Adapter?

Data Adapter is a part of ADO.NET data provider which acts as a communicator between Dataset and the Data source. This Data adapter can perform Select, Insert, Update and Delete operations in the requested data source.

Unit-4

31.What is ASP.Net?

It is a framework developed by Microsoft on which we can develop new generation web sites using web forms(aspx), MVC, HTML, Javascript, CSS etc. Its successor of Microsoft Active Server Pages(ASP). Currently there is ASP.NET 4.0, which is used to develop web sites. There are various page extensions provided by Microsoft that are being used for web site development. Eg: aspx, asmx, ascx, ashx, cs, vb, html, XML etc.

32. What's the use of Response.Output.Write()?

We can write formatted output using Response.Output.Write().

33. In which event of page cycle is the ViewState available? After the Init() and before the Page_Load().

34. What is the difference between Server.Transfer and Response.Redirect?

In Server.Transfer page processing transfers from one page to the other page without making a round-trip back to the client's browser. This provides a faster response with a little less overhead on the server. The clients url history list or current url Server does not update in case of Server.Transfer.

Response.Redirect is used to redirect the user's browser to another page or site. It performs trip back to the client where the client's browser is redirected to the new page. The user's browser history list is updated to reflect the new address.

35. From which base class all Web Forms are inherited?

Page class.

36. What are the different validators in ASP.NET?

1. Required field Validator
2. Range Validator
3. Compare Validator
4. Custom Validator
5. Regular expression Validator
6. Summary Validator

37. Which validator control you use if you need to make sure the values in two different controls matched?

Compare Validator control.

38. What is ViewState?

View State is used to retain the state of server-side objects between page post backs.

39. Where the viewstate is stored after the page postback?

ViewState is stored in a hidden field on the page at client side. ViewState is transported to the client and back to the server, and is not stored on the server or any other external source.

40. How long the items in ViewState exists?

They exist for the life of the current page.

Unit-5

41. What is a class?

Class is concrete representation of an entity. it represents a group of objects, which hold similar attributes and behavior. it provides abstraction and encapsulations.

42. What is an object?

Object represents/resembles a physical/real entity. an object is simply something you can give a name.

43. What is abstraction?

Hiding the complexity. it is a process of defining communication interface for the functionality and hiding rest of the things.

44. What is C#?

C# is an object oriented, type safe and managed language that is compiled by .Net framework to generate Microsoft Intermediate Language.

45. What are delegates?

Delegates are same as function pointers in C++ but the only difference is that they are type safe unlike function pointers. Delegates are required because they can be used to write much more generic type safe functions.

46. 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
```

47. What is the base class in .net from which all the classes are derived from?

```
System.Object
```

48. What is the difference between method overriding and method overloading?

In method overriding, we change the method definition in the derived class that changes the method behavior. Method overloading is creating a method with the same name within the same class having different signatures.

49. What are the different ways a method can be overloaded?

Methods can be overloaded using different data types for parameter, different order of parameters, and different number of parameters.

50. 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.

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K3 LEVEL QUESTIONS

Unit-1

1. Differentiate between managed and unmanaged code?
2. What is the difference between arrays and dynamic arrays?
3. What is the difference between user and custom controls?
4. What is class library?
5. What Is the Difference Between Namespace and Assembly?
6. What Are Value Types and Reference Types?
7. What is MSIL code?
8. What's the Difference Between System Exceptions and Application Exceptions?
9. What is the difference between boxing and unboxing?
10. Differentiate between sub procedure and function?

Unit-2

11. What are the differences between a Class and a Structure?
12. What is the difference between Array and ArrayList? What are the differences between System.String and System.Text.StringBuilder classes?
13. What's the difference between the System.Array.CopyTo() and System.Array.Clone()?
14. What are similarities between a class and a structure?
15. Is it a good practice to handle exceptions in code?
16. Can you use the 'throws' clause to raise an exception?
17. How can you prevent a class from overriding in C# and Visual Basic?
18. What is the difference between procedural and object-oriented programming?
19. Differentiate between an abstract class and an interface.
20. How can you declare a structure?

Unit-3

21. What is the differences Between DataReader and DataSet
22. What is the difference between ADO and ADO.NET?
23. Why is it important to close an ADO.NET application?

24. What are the different methods by which we can populate a Dataset
25. What are the properties of data adapter?
26. Give few examples of DataReader that is used in different DataProviders.
27. What are the types of errors?
28. Write some common dialog controls.
29. What is debugging? explain.
30. How can you access a database?

Unit-4

31. What are web controls in ASP.NET?
32. What is session tracking?
33. What is the difference between Server.Transfer and Response.Redirect?
34. What are the different validators in ASP.NET?
35. Where the viewstate is stored after the page postback?
36. What are the different types of caching?
37. List the events in page life cycle.
38. What is the difference between an HtmlInputCheckBox control and an HtmlInputRadioButton control?
39. What are the different types of cookies in ASP.NET?
40. What is the difference between ExecuteScalar and ExecuteNonQuery?

Unit-5

41. What is the difference between Virtual method and Abstract method?
42. What is an Object and a Class?
43. What's The Difference Between The System.array.CopyTo() And System.array.Clone()?
44. What are the different types of Delegates?
45. What Are the Fundamental Differences Between Value Types and Reference Types?
46. Are C# Constructors the Same as C++ Constructors?
47. What is the difference between public, static and void?
48. What is the difference between ref & out parameters?
49. What's the difference between an interface and abstract class?
50. What is the difference between method overriding and method overloading?

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K4&K5 LEVEL QUESTIONS

Unit-1

1. Explain CLR, CLS and CTS?
2. Explain the structure of dot net framework
3. With a neat diagram explain dot net IDE?
4. Explain looping statements in dot net?
5. Explain select case statement with an example.

Unit-2

6. Discuss events and menus which are handled in dot net.
7. Define validation? What are the six validation controls? Explain.
8. What are procedures? Explain with an example.
9. Explain structures in detail?
10. Explain hash tables in detail.

Unit-3

11. What are the benefits of ADO.Net?.
12. What are the ADO.NET components?
13. How can you define the DataSet structure?
14. What are the data providers in ADO.NET framework?
15. What is Connection Pooling in ADO.NET?

Unit-4

16. Write a short note on ASP dot net.
17. List the events in web page life cycle.
18. Explain variables and constants used in web forms?
19. Explain data manipulation with ASP .NET.
20. Discuss about the server controls using ASP.NET.

Unit-5

21. What are the different types of classes in C#?

22. Explain Code compilation in C#
23. What are the fundamental OOP concepts?
24. What are the different types of classes in C#?
25. Explain Polymorphism?