

Time 20 mins

1. Which is the default base class for all classes?

- A. System.object
- B. System.Object**
- C. SystemObject
- D. ObjectSystem

2. How do you specify that a class cannot be used as a base class?

- A. mark it as a struct(struct class My Class{})
- B. change its access specifier from public to any other access specifier(internal class My Class{})
- C. make it abstract (abstract class My Class{})
- D. make it sealed (sealed class My Class{})**

3. This is the correct syntax for overloading the + operator for My Class and a int

- A. public My Class operator+(int a){...}
- B. public static My Class operator+(int a){...}
- C. public My Class operator+(My Class x,int a){...}
- D. public static My Class operator+(My Class x,int a){...}**

4. This is the correct syntax for writing an extension method for a string

- A. public void DoSomething(string a){...}
- B. public IExtension void DoSomething(string a){...}
- C. public static void DoSomething(string a){...}
- D. public static void DoSomething(this string a){...}**

5. What does Array.IndexOf() return if the item being searched is not found?

- A. null
- B. error
- C. Index of the last item + 1
- D. -1**

6. Give the CTS(Common Type System) type for float

- A. System.Float
- B. System.Decimal
- C. System.Single**
- D. System.Double

7. char variables occupy ___ bytes

- A. 1
- B. 2**
- C. 0
- D. 4

8. What is the correct syntax for a lambda that takes no parameters and has multiple line of code

- a. ()=>{code}**
- b. => code

c. `delegate()`

d. Not possible to do so

9. For a class to be serialized using the BinaryFormatter,

A. The class needs to be marked with an attribute `ISerializable`

B. The assembly needs to be marked with an attribute `ISerializable`

C. The class needs to be marked with an attribute `Serializable`

D. The assembly needs to be marked with an attribute `Serializable`

10. Which of these is correct for the explicit implementation of an interface?

A. `public void Method1()`

B. `void Method1()`

C. `public void InterfaceName.Method1()`

D. `void InterfaceName.Method1()`

11. How do you declare a nullable int?

A. `Nullable int a;`

B. `int a = null;`

C. `int? a;` OR `Nullable<T> i = null;`

D. `int?? a;`

12. Which interface does `ArrayList` implement?

A. `IList`

B. `IList<T>`

C. `IDictionary`

D. `IDictionary<TKey,TValue>`

13. Which of these is the correct syntax for an object initializer?

a. `Class1 o = new Class1{a=10};`

b. `Class1 o = new Class1(){a=10};`

c. `Class1 o = new Class1(20){a=10};`

d. All of the above

14. How do you call a function using `ThreadPool`?

a. Start

b. Begin

c. Invoke

d. `QueueUserWorkItem`

15. Which of the following statements is false?

A. A struct does not allow inheritance.

B. A struct cannot have a no parameter constructor

C. A struct is a value type

D. A struct is stored on the stack in memory.

E. A struct cannot have methods.

16. In `FormsAuthentication`, the following method deletes the authentication cookie.

A. `FormsAuthentication.Cookie.Delete`

B. `FormsAuthentication.Logout`



C. FormsAuthentication.SignOut

D. FormsAuthentication.Cookie.Remove

17. To generate a proxy class for a WCF service we use the following command line utility

- a. genprox
- b. svcutil**
- c. wsdl
- d. csc

18. How do you override the bundling setting of web.config?

- a. write code in BundleConfig.cs and set the EnableOptimizations property of the BundleTable class**
- b. write code in BundleConfig.config and set the EnableOptimizations property of the BundleTable class
- c. write code in BundleConfig.cs and set the EnableOptimizations property of the BundleCollection class
- d. write code in BundleConfig.config and set the EnableOptimizations property of the BundleCollection class

19. To achieve Minification(Minification removes all whitespace and renames variables to their shortest possible name) in asp.net mvc

- a. Set minification = true in compilation section in web.config
- b. Set minification = false in compilation section in web.config
- c. Set debug = true in compilation section in web.config
- d. Set debug = false in compilation section in web.config**

20. To show a partial view in asp.net mvc with a method that returns a html string we use

- a. Html.Partial()**
- b. Html.RenderPartial()
- c. Html.RenderAction()
- d. Html.RenderView()

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.Net Mid module test

1. On compilation of CSharp source code, the output we get is

- A. byte code
- B. assembly**
- C. IL
- D. MSIL

2. Jit compilation converts

- A. IL to MSIL
- B. MSIL to IL
- C. source code to IL
- D. source code to native code
- E. none of the above**



3. Garbage collection happens at
- A. regular intervals
 - B. when an object goes out of scope
 - C. when the CLR decides**
 - D. at the end of the code execution
4. App domains are
- A. The area in memory where an application runs
 - B. The area inside a process where an application runs**
 - C. The area where the application has its domain
 - D. On the heap
5. CLS is
- A. a set of rules that all .net compilers follow
 - B. a set of rules that are allowed for a .net language
 - C. a set of rules that all .net languages must follow to be able to be called from other languages**
 - D. used for data types
6. Give the CTS type for float
- A. System.Float
 - B. System.Decimal
 - C. System.Single**
 - D. System.Double
7. char variables occupy ___ bytes
- A. 1
 - B. 2**
 - C. 0
 - D. 4
8. Which of the following statements is True?
- A. Func is used to call methods with a void return type, Action for non void return type methods and Predicate for methods with a bool parameter
 - B. Func is used to call methods with a void return type, Action for non void return type methods and Predicate for methods with a bool return value
 - C. Action is used to call methods with a void return type, Func for non void return type methods and Predicate for methods with a bool parameter
 - D. Action is used to call methods with a void return type, Func for non void return type methods and Predicate for methods with a bool return value**
9. When is the static constructor called?
- A. whenever an object is created
 - B. when the class is loaded**
 - C. when Main is called
 - D. whenever a static method is called
10. Which of the following is true for a static class?
- A. It can only contain static methods



- B. It cannot be instantiated
- C. It cannot be used as a base class
- D. All of the above**
- E. None of the above

11. What is the default access specifier for members in a class?

- A. internal
- B. public
- C. private**
- D. protected

12. What is the default access specifier for a class declared in a namespace?

- A. internal**
- B. public
- C. private
- D. protected

13.

```
class BaseClass
{ int a;
  public BaseClass(int a)
  { this.a = a;}
}
class DerivedClass : BaseClass
{ int b;
  public DerivedClass(int b)
  { this.b = b;}
}
class Program{
static void Main()
    { DerivedClass o = new DerivedClass(10);}
}
```

What is the value in o.a after running this code?

- A. 0
- B. 10
- C. null
- D. code will not compile.**

14. Which of these statements is true?

- A. To overload a function defined in the base class from the derived class we use the overloads keyword
- B. To overload a function defined in the base class from the derived class we use the new (For Method Hiding)keyword
- C. To overload a function defined in the base class from the derived class we use the override keyword
- D. None of the above**

15. Which of these statements is true?

- A. To hide a function defined in the base class from the derived class we use the overloads keyword
- B. To hide a function defined in the base class from the derived class we use the new keyword**
- C. To hide a function defined in the base class from the derived class we use the override keyword
- D. To hide a function defined in the base class from the derived class we use the sealed keyword
- E. None of the above

16. Which of these statements is false?

- A. To override a function defined in the base class from the derived class the base class method must be a virtual method
- B. To override a function defined in the base class from the derived class we use the override keyword
- C. To override a function defined in the base class from the derived class the method signatures must be the same
- D. None of the above**

17. Which of these statements is false?

- A. An abstract class need not have any abstract methods
- B. An abstract class cannot be instantiated
- C. A class that contains at least one abstract method needs to be marked as abstract
- D. A derived class must implement all abstract methods of an abstract base class or the derived class must be marked as abstract
- E. None of the above**

18. Which of these statements is false?

- A. A sealed class cannot be used as a base class
- B. A sealed class can be instantiated
- C. A sealed class cannot have virtual methods
- D. A sealed class cannot have abstract methods
- E. None of the above**

19. Which of these statements is true?

- A. In late binding, we declare an object of the base class and allocate memory for a derived class**
- B. In late binding, we declare an object of the derived class and allocate memory for a base class
- C. In late binding, we cannot declare an object of the base class and allocate memory for a sub-derived class
- D. In late binding, we need not have any virtual methods in the base class
- E. None of the above

20. Which of these is correct for the explicit implementation of an interface?

- A. `public void Method1(){}`
- B. `void Method1(){}`
- C. `public void InterfaceName.Method1(){}`
- D. `void InterfaceName.Method1(){}`**

21. How do you declare a nullable int?

- A. Nullable int a;
- B. int a = null;
- C. int? a;**
- D. int?? a;

22. Which statement is false?

- A. out variables need not have an initial value
- B. out variables lose their initial value when they enter the function
- C. you must initialise an out variable before control leaves the function
- D. out variables cannot be used in the function before they are initialised
- E. None of the above**

23. Which statement is true?

- A. ref variables need not have an initial value
- B. ref variables lose their initial value when they enter the function
- C. you must initialise a ref variable before control leaves the function
- D. ref variables cannot be used in the function before they are initialised
- E. None of the above**

24.

int [,] arr = new int[4,3];

What will be the values for :

arr.Rank, arr.GetLength(1), arr.GetUpperBound(0)

- A. 2, 3, 3**
- B. 2, 4, 3
- C. 2, 3, 4
- D. 1, 3, 3
- E. 1, 4, 3

25. What does Array.IndexOf() return if the item being searched is not found?

- A. null
- B. error
- C. Index of the last item + 1
- D. -1**

26. Which class is used to iterate thru a SortedList< TKey,TValue> ?

- A. DictionaryEntry
- B. DictionaryEntry< TKey,TValue>
- C. KeyValuePair
- D. KeyValuePair< TKey,TValue>**

27. Which interface does ICollection< T> inherit from?

- A. IEnumerable
- B. IEnumerable< T>**
- C. IList< T>
- D. IDictionary< T>
- E. None of the above



28. In generics, what constraint means that T can only be a value type?

- A. where T: value
- B. where T: valueType
- C. where T: struct**
- D. where T: class

29. What is the base class of all classes if no class has been specified as the base class?

- A. Nothing
- B. ToString()
- C. base
- D. Object**

30. Which of the following statements is false?

- A. A struct does not allow inheritance.
- B. A struct cannot have a no parameter constructor
- C. A struct is a value type
- D. A struct is stored on the stack in memory.
- E. A struct cannot have methods.**

31. How do you specify that a thread should get a higher time slice?

- a. set the Priority property**
- b. set the ThreadPriority property
- c. set the TimeSlice in milliseconds
- d. Cannot be done

32. How can you keep waiting till another thread(called t) finishes?

- a. t.Join
- b. t.WaitOne
- c. t.Wait
- d. t.Sleep**

33. Which of these is the correct syntax for an object initializer?

- a. Class1 o = new Class1{a=10};
- b. Class1 o = new Class1(){a=10};
- c. Class1 o = new Class1(20){a=10};
- d. All of the above**

34. How do you call a function using ThreadPool?

- a. Start
- b. Begin
- c. Invoke
- d. QueueUserWorkItem**

35. What is the correct syntax for a lambda that takes no parameters and has multiple line of code

- a. ()=>{code}**
- b. => code
- c. delegate(){}



d Not possible to do so

=====

1. Which of the following statements is false?

- a. The Garbage Collector uses the concept of generations to free memory.
- b. Generation 0 is checked first.
- c. If an object is not freed, it is promoted to Generation N+1 where N is its current generation.
- d. There are a maximum of 3 generations 0,1,and 2.
- e. None of the above.**

2. Why should we implement IDisposable?

- a. It is better than non deterministic finalization
- b. Dispose gets called automatically for all objects in a using block
- c. To write code to free resources
- d. All of the above**
- e. None of the above

3. Which of the following statements is false?

- a. The Assembly contains Metadata and code.
- b. The assembly is in MSIL format.
- c. The assembly may contain one or more modules.
- d. The assembly has an entry point (Main()).
- e. None of the above.**

4. Automatic Property has the following syntax

- a. public property propertyname{get{} set{}}
- b. public int propertyname{get{} set{}}
- c. public propertyname{get; set;}
- d. public int propertyname{get; set;}**

5. Which of the following statements is false?

- a. a reference type cannot be passed as a ref
- b. a value type can be passed as a ref
- c. ref and out can both change the value of the variable in the calling code**
- d. a value type can be passed as out

6. How can you keep waiting till another thread(called t) finishes?

- a. t.Join
- b. t.WaitOne
- c. t.Wait
- d. t.Sleep**

7. Which statement is true for an Extension method?

- a. Extension methods can be written in any class.
- b. Extension methods cannot have parameters.

- c. Extension methods can be overridden.
- d. Extension methods must be static.**

8. Which of these methods cannot be overridden?

- a. static**
- b. override
- c. virtual
- d. abstract

9. Which of the following types can be used as a base class?

- a. Abstract Class**
- b. Struct
- c. Sealed class
- d. Enum
- e. None of the above

10. Which delegate class is used to specify a function to be called automatically after the function that is invoked by `delegateobject.BeginInvoke`?

- a. IAsyncResult**
- b. AsyncCallback
- c. AsyncResult
- d. Action
- e. None of the above

11. How do you specify that a thread should get a higher time slice?

- a. set the Priority property**
- b. set the ThreadPriority property
- c. set the TimeSlice in milliseconds
- d. Cannot be done

12. Which of these classes is used for synchronization in Threading?

- a. ThreadPool**
- b. ThreadStart
- c. Monitor
- d. ParameterizedThreadStart

13. What does a LINQ query return?

- a. var
- b. ICollection<T>
- c. IList<T>
- d. IEnumerable<T>**

14. What is the correct syntax for a lambda that takes no parameters and has multiple line of code

- a. ()=>{code}**
- b. => code
- c. delegate(){}
- d. Not possible to do so

15. How do you convert Linq query to PLINQ?
- a. cannot be done
 - b. just add the letter P before it
 - c. Use AsParallel() for the collection object**
 - d. implement IEnumerable<Plinq>
16. Which of the following is a Value type?
- a. Array
 - b. Interface
 - c. Delegate
 - d. Class
 - e. None of the above**
17. How can you call a function using Task?
- a. Create a task object and call the Start method
 - b. Use Task.Run
 - c. Use Task.Factory.StartNew
 - d. All of the above**
18. Which of these is correct for a function that returns an int and takes a string as a parameter?
- a. Action<int, string>
 - b. Action< string,int>
 - c. Func<int, string>
 - d. Func <string,int>**
19. What is the correct syntax for operator overloading?
- a. public int operator+(Class1 o, int i){}
 - b. public static int operator+(Class1 o, int i){}**
 - c. public int operator+(int i){}
 - d. public static int operator+(int i){}
20. How do you call a function using ThreadPool?
- a. Start
 - b. Begin
 - c. Invoke
 - d. QueueUserWorkItem**
-

1. Which of the following statements is correct
- A. C# data type bool - CTS type Boolean, C# data type float – CTS type Float

- B. C# data type bool - CTS type Bool, C# data type float – CTS type Float
- C. C# data type bool - CTS type Boolean, C# data type float – CTS type Single**
- D. C# data type bool - CTS type Bool, C# data type float – CTS type Single

2. Which of the following statements is false?

- A. Assembly metadata can be read using Reflection
- B. Assembly is in IL form
- C. Assembly contains metadata and code
- D. Assembly can have attributes
- E. None of the above**

3. The default data type of an enum is

- A. Int32**
- B. Int 16
- C. Int64
- D. String

4. To make an assembly shared, we need to ...

- A. Give it a strong name
- B. Sign it with a key pair
- C. Install it in the GAC
- D. All of the above**
- E. None of the above

5. i) Storing a value type into a reference type results in Boxing
ii) Storing a reference type into a value type results in Boxing
iii) Storing a value type into a reference type results in UnBoxing
iv) Storing a reference type into a value type results in UnBoxing

- A. All are false
- B. All are true
- C. i) and iii) are true
- D. ii) and iv) are true
- E. i) and iv) are true**
- F. i) and ii) are true

6. Which of the following statements is false?

- A. All Generic Collections implement IEnumerable<T>
- B. IList<T> inherits from ICollection<T>
- C. IDictionary inherits from ICollection
- D. ICollection inherits from IEnumerable
- E. None of the above**



7. To call a method asynchronously using a delegate object, we use
- A. objDel.Invoke(...)
 - B. objDel.BeginInvoke(...)**
 - C. objDel.EndInvoke(...)
 - D. System.Delegate.InvokeAsync(...)
8. What is the error in the following snippet?
- ```
void DoSomething()
{
 try
 {

 }
 catch(Exception ex) { ... }
 catch(NullReferenceException ex) { ... }
 catch(DivideByZeroException ex) { ... }
}
```
- A. No finally written
  - B. No errors
  - C. ex object is re-declared multiple times
  - D. Base class exception is given first**
9. Which property must be set in WCF Configuration to allow users to see Exception Details of a WCF Methods?
- A. serviceDebug allowExceptions
  - B. serviceDebug includeExceptionDetailInFaults**
  - C. serviceDebug includeCustomExceptionDetails
  - D. serviceMetadata includeCustomExceptionDetails
10. To raise an event defined by you,
- A. RaiseEvent EventName
  - B. RaiseEvent EventName(...)
  - C. EventName(...)**
  - D. DelegateClassName(...)
11. Which of the following is not a valid Thread state as defined in the ThreadState enum?
- A. Aborted
  - B. Running
  - C. Stopped
  - D. Sleep
  - E. Suspended



## F. Background

12. What is true for a background thread?
- A. Background thread cannot be called directly
  - B. Background thread gets a lesser priority
  - C. Background thread is Unmanaged code
  - D. Background thread runs only when the CPU is idle
  - E. All of the above
  - F. **None of the above**
13. What is the difference between out and ref variables?
- A. out variables can't change the calling code variable value but ref can
  - B. out variables can change the calling code variable value but ref can't
  - C. **out variables must be initialized before the function ends. Not required for ref variables**
  - D. out variables can't be used for reference types but ref can.
  - E. None of the above
14. What is false for a static constructor?
- A. Parameterless
  - B. Cant be overloaded
  - C. Implicitly private
  - D. Called when the class is loaded into memory
  - E. Called just once
  - F. **None of the above**
15. For property accessors, which of the following is not allowed?
- A. Public property, private accessor
  - B. Protected internal property, private accessor
  - C. **Protected property, internal accessor**
  - D. Internal property, private accessor
16. Which class can be used as a base class?
- A. **Abstract**
  - B. Sealed
  - C. Static
  - D. internal class defined in another assembly
17. Which of the following statements is false?
- A. An abstract class has at least one abstract method
  - B. All abstract methods are pure virtual functions
  - C. An abstract method can only exist in an abstract class



- D. The derived class must implement all the abstract methods or be marked as an abstract class
- E. **None of the above**
18. `int ? a = 100;`  
What is false for this statement?
- A. a is a nullable type variable
- B. Compiler converts this to `Nullable<int> a = 100;`
- C. **This line is an error**
- D. a = null is valid
19. What is false?
- A. All Arrays inherit from the Array class
- B. We can iterate using a foreach loop
- C. Arrays are a reference type
- D. **Double dimension arrays can be sorted using Array.Sort**
20. Which is not valid LINQ?
- i) `from a in b where a.i > 0 select a.j`
- ii) `b.Select(a=>a.j).Where(a=>a.i>0)`
- iii) `b.Where(a=>a.i>0).Select(a=>a.j)`
- A. Only i
- B. **Only ii**
- C. Only iii
- D. ii and iii
21. In FormsAuthentication, the following method deletes the authentication cookie.
- A. `FormsAuthentication.Cookie.Delete`
- B. `FormsAuthentication.Logout`
- C. **`FormsAuthentication.SignOut`**
- D. `FormsAuthentication.Cookie.Remove`
22. Which of these is available in a Redirect but not in subsequent requests?
- a. ViewBag
- b. ViewData
- c. **TempData**
- d. Session variable
23. How do you override the bundling setting of web.config?
- a. **write code in BundleConfig.cs and set the EnableOptimizations property of the BundleTable class**
- b. write code in BundleConfig.config and set the EnableOptimizations property of the BundleTable class

- c. write code in BundleConfig.cs and set the EnableOptimizations property of the BundleCollection class
  - d. write code in BundleConfig.config and set the EnableOptimizations property of the BundleCollection class
24. To achieve Minification in asp.net mvc
- a. Set minification = true in compilation section in web.config
  - b. Set minification = false in compilation section in web.config
  - c. Set debug = true in compilation section in web.config
  - d. **Set debug = false in compilation section in web.config**
25. To show a partial view in asp.net mvc with a method that returns a html string we use
- a. **Html.Partial()**
  - b. Html.RenderPartial()
  - c. Html.RenderAction()
  - d. Html.RenderView()
26. To allow a method to be called from a Webservice, do the following
- A. Keep it as a public method
  - B. Keep it as a public static method
  - C. **Keep it as a public method with a WebMethod attribute**
  - D. Keep it as a public static method with a WebMethod attribute
27. Which class do we inherit from while interacting with the Entity Framework
- A. Entity
  - B. Framework
  - C. **DbContext**
  - D. DataContext
28. Which of the following statements is true?
- A. A command can be executed from a closed connection
  - B. A Datareader cannot contain more than one set of data
  - C. A DataSet can only have one dataTable
  - D. **A DataAdapter need not have an open connection to call its fill method**
29. What does the SoapFormatter serialize
- A. methods of a class
  - B. public variables and properties of a class
  - C. **public and private variables of a class**
  - D. public and private properties of a class
30. To add a Primary key constraint on the DataTable
- A. pass a DataColumn array object to the PrimaryKey property for the DataSet
  - B. pass a DataColumn object to the PrimaryKey property for the DataSet
  - C. **pass a DataColumn array object to the PrimaryKey property for the DataTable**





- D. pass a DataColumn object to the PrimaryKey property for the DataTable
31. To see records from a DataTable in a sorted manner use...
- A. Sort property of DataTable
  - B. Sort property of DataView**
  - C. Sort property of DataSet
  - D. Sort property of DataColumn
32. How do you run a method in a new thread
- a. Create a thread object and pass a method as a parameter to the constructor
  - b. call thread.Run()
  - c. call thread.Start()**
  - d. call thread.BeginInvoke()
33. Which of these provides a read only, forward only way of reading records
- a. DataTable
  - b. DataView
  - c. DataSet
  - d. SqlDataReader**
34. Which of these does not require typecasting while accessing it
- a. ViewBag**
  - b. ViewData
  - c. TempData
  - d. Session variable
35. Which method of the DataSet returns the records whose RowState is not Unchanged
- a. AcceptChanges
  - b. RejectChanges
  - c. GetChanges**
  - d. Update
36. In a WCF service the following describes the WCF service in detail
- a. Proxy Class
  - b. WSDL
  - c. Mex endpoint**
  - d. Disco file
37. What attribute is used to mark a method in a ServiceContract?
- a. ServiceContract
  - b. DataContract
  - c. DataMember
  - d. OperationContract**
38. Duplex WCF service uses the following binding

- a. WsDuplexHttpBinding
- b. **WsDualHttpBinding**
- c. WebHttpBinding
- d. BasicHttpBinding

39. To add a new row to a Datatable ...

- a. call the Add method of the Rows collection of the DataSet
- b. call the Add method of the DataTable
- c. **call the Add method of the Rows collection of the DataTable**
- d. call the Add method of the DataSet

40. Restful WCF service uses the following binding

- a. WsDuplexHttpBinding
- b. WsDualHttpBinding
- c. **WebHttpBinding**
- d. BasicHttpBinding

