Q. _____ allow an object to notify other objects that a change has occurred.

1). delegate

2). method

3). **event**

4). property

Q. Which of these statement is true wrt variable scope in Lambda expression?

1. A variable used in a lambda expression won't be accessible in the parent method
2. A variable used in lambda expression won't be garbage collected until the delegate that references that variable is out of scope

1). Statement 1 is true
Statement 2 is false

2). **Statement 1 is true**
Statement 2 is true

3). Statement 1 is false
Statement 2 is true

4). Statement 1 is false
Statement 2 is false

. Which of the following statements is incorrect about delegate?

1. Delegates are reference types.
2. Delegates are type-safe.

1). Statement 1 is true
Statement 2 is false

2). **Statement 1 is true**
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is false
Statement 2 is true

. Events follow which of these model

1). **publisher subscriber**

2). action reaction

3). request response

4). send receive

. Which type of delegate gets declared in the below code?

delegate void MyDel(int num1, int num2);
1). Single cast delegate

2). **multi-cast delegate**

3). Invalid delegate declaration

Q. Which of these statements are true wrt Lambda Expression?

1. A lambda expression is internally Anonymous Function
2. Lambda expression uses lambda operator => and read as 'goes to' operator

1). Statement 1 is false
Statement 2 is false

2). Statement 1 is false
Statement 2 is true

3). Statement 1 is true
Statement 2 is false

4). **Statement 1 is true**
Statement 2 is true

Q. Which of these operators are used to add or remove methods from a multicast delegate?

1). +

2). +=

3). -

4). -=

5). **All of the Above**

Q. In which of the following areas are delegates commonly used?

1). Remoting

2). Serialization

3). File Input/Output

4). **Multi-Threading**

5). **Event Handling**

Q. Which of these statement is false wrt to Events?

1. Event Handler should ideally have three parameters. First is a reference to the object that generated the event. Second is a parameter of type EventArgs. Last Event source object.

2. Event Handler has 2 parameters. First a reference type that generated the event.
Second is the EventArgs parameter.

1). Statement 1 is false
Statement 2 is false

2). **Statement 1 is false**
Statement 2 is true

3). Statement 1 is true
Statement 2 is false

4). Statement 1 is true
Statement 2 is true

Q. Consider the below code. Which of these is the correct way to declare a delegate?

```
class Sample
{
   public int DoSome(int id)
   {
      Console.WriteLine("Welcome to Capgemini." );
      return 0;
   }
}
```

1). delegate void del(int i);

2). delegate void del = new delegate(ref MyFun);

3). **delegate int del(int i);**

4). .

Q. Which of the statements are true with respect to ArrayList Class?

1). **The ArrayList class is a dynamic array of heterogeneous objects**

2). In an array list we can store only objects of the same type

3). **The elements of the Array list will get stored as Objects**

4). **An ArrayList uses its indexes to refer to a particular object stored in its collection**

Q. Which of the following statement is associated with Iterator code?

1). With

2). **Yield**

3). Optional

4). Using

Q. You have a hashtable object that has the following key value pair:

101 Smith John
102 Robin Clark
103 Walt Disney
104 Christopher Hawk
105 Dennis Ritchie

Now you wish to sequentially view the key of the hash table in the console and then remove the second last record and then view the data in the hash table. (Hint : 2 options)
Which of the following code will help you do this?

1).
```
Hashtable hashtable = new Hashtable();
hashtable.Add(101," Smith John");
hashtable.Add(102 ,"Robin Clark");
hashtable.Add(103 ,"Walt Disney");
hashtable.Add(104  ,"Christopher Hawk");
hashtable.Add(105 , " Dennis Ritchie");
foreach (int k in hashtable.Keys)
{
Console.WriteLine(k);
}
Console.WriteLine("Remove the  Second last key");
hashtable.Remove(hashtable.Count-1);
foreach (int k in hashtable.Keys)
{
Console.WriteLine(k);
}
```

2).
```
Hashtable hashtable = new Hashtable();
hashtable.Add(101," Smith John");
hashtable.Add(102 ,"Robin Clark");
hashtable.Add(103 ,"Walt Disney");
hashtable.Add(104  ,"Christopher Hawk");
hashtable.Add(105 , " Dennis Ritchie");
IDictionaryEnumerator _enumerator = hashtable.GetEnumerator();
while (_enumerator.MoveNext())
{
Console.WriteLine(_enumerator.Key.ToString());
 }
Console.WriteLine("Remove the  Second last key");
hashtable.Remove(hashtable.Count-1);
while (_enumerator.MoveNext())
{
Console.WriteLine(_enumerator.Key.ToString());
 }
```

3).
```
Hashtable hashtable = new Hashtable();
hashtable.Add(101," Smith John");
hashtable.Add(102 ,"Robin Clark");
hashtable.Add(103 ,"Walt Disney");
hashtable.Add(104  ,"Christopher Hawk");
```

```
hashtable.Add(105 , " Dennis Ritchie");
IDictionaryEnumerator _enumerator = hashtable.GetEnumerator();
while (_enumerator.MoveNext())
{
Console.WriteLine(_enumerator.Key.ToString());
 }
Console.WriteLine("Remove the  Second last key");
hashtable.Remove(hashtable.Count-1);
IDictionaryEnumerator new_enumerator = hashtable.GetEnumerator();
while (new_enumerator.MoveNext())
{
Console.WriteLine(new_enumerator.Key.ToString());
 }
```

4). Hashtable hashtable = new Hashtable();
hashtable.Add(101," Smith John");
hashtable.Add(102 ,"Robin Clark");
hashtable.Add(103 ,"Walt Disney");
hashtable.Add(104 ,"Christopher Hawk");
hashtable.Add(105 , " Dennis Ritchie");
IDictionaryEnumerator _enumerator = hashtable.GetEnumerator();
while (_enumerator.MoveNext())
{
Console.WriteLine(_enumerator.Key.ToString());
 }
Console.WriteLine("Remove the Second last key");
hashtable.Remove(hashtable.Count-1);
_enumerator.Reset();
while (new_enumerator.MoveNext())
{
Console.WriteLine(new_enumerator.Key.ToString());
 }

Which of the following classe is not present in the System.Collections.Generic namespace?

1). Dictionary<Tkey, Tvalue>

2). List<T>

3). Queue<T>

4). Stack<T>

5). **ArrayList<T>**

. Which of the following statement is not correct about ICollection interface?

1). ICollection inerface is foundation of the collections namespace and is implemented by all the coll ection classes

2). ICollection defines only the most basic collection functionality

3). **ICollection interface is inherited by IEnumerable interface**

4). ICollection interface's CopyTo() method copies all elements in the collection into an array

Q. Which of the following is correct about the code snippet given below?

```
Stack st = new Stack();
st.Push("hello");
st.Push(8.2);
st.Push(5);
st.Push('b');
st.Push(true);
```

1). Dissimilar elements like "hello", 8.2, 5 cannot be stored in the same Stack collection.

2). Boolean values can never be stored in Stack collection.

3). To store dissimilar elements in a Stack collection, a method PushAnyType() should be used in pl ace of Push().

4). **This is a perfectly workable code.**

Q. Which of the following are advantages of using Generics?

1) Better Performance
2) Type Safety
3) Binary Code Reuse

1). 1 & 2

2). 2 & 3

3). 1 & 3

4). **All of the above**

Q. Which of the following statement is not correct about yield?

1). It is used in an iterator block to provide a value to the enumerator object or to signal the end of ite ration

2). **The return statement is as below:**
return yield <expression>;

3). When the yield return statement is reached, the current location is stored.

4). The yield keyword is used to specify the value, or values, returned.

Q. Select which statements are true with respect to the Functions of the Stack Class:
1). Push function inserts an object in the middle of the stack

2). Pop function returns the object from the stack but does not remove it from the stack

3). **Peek function returns the object from the stack but does not remove it from the stack**

4). None of them is true

Q. State whether the following statements are true with regard to the Enumerator object:

a. Enumerator provides read-only, forward-only cursor for set of items.
b. If the collection to which the enumerator is referencing is modified, the enumeration may not work.
c. The GetEnumerator() method returns an instance of the IDictionary class
d. The Reset property of the enumerator sets the enumerator position to the current element of the c ollection.
e. Classes that implement the GetEnumerator() must return a class that implements the IEnumerato r interface.
1). **A-true, B-true, C-false, D-false, E-true**

2). A-true, B-true, C-true, D-true, E-true

3). A-false, B-false, C-false, D-false, E-false

4). A-true, B-true, C-false, D-false, E-false

Rohan is working on creating a MSIL utility, where he needs to get list of all constructors, methods, fields & properties. He is then passing these collections to one method which then get the details of each member, as follow.

```
Assembly assembly = Assembly.GetExecutingAssembly();
Type x = assembly.GetType("ReflectionTest.Student");
ShowDetails(x.GetMethods());
ShowDetails(x.GetFields());
ShowDetails(x.GetProperties());
ShowDetails(x.GetConstructors());
```

What will be the most suitable type of array as parameter to ShowDetails method ?
1). Object

2). Assembly

3). **MemberInfo**

4). MethodInfo

Solution :
option [3] is correct

Which part of .NET Framework helps to achieve the language interoperability ?

1). JIT

2). **CTS**

3). Garbage Collector

4). FCL

Q. Which of the following is not a benefit of Assemblies in .NET ?

1). Creates boundary for types included.

2). Helps in providing code reusability.

3). **Improves the performance of applications.**

4). Adds versioning capabilities.

Q. Which one of the following provides the 'Side-By-Side Execution' ?

1). **Assembly**

2). Reflection

3). Standard Attributes

4). Custom Attributes

Q.Roy has written the following lines of code to print details of all the types from the current assembl
y.
What will the type of x variable in the following code ?

```
Assembly assembly = Assembly.GetExecutingAssembly();
foreach (var x in assembly.GetTypes())
{
 MessageBox.Show(x.FullName);
}
```

1). System.Member

2). **System.Type**

3). User Defined Type as defined within the assembly

4). System.Object

Q. Where does the metadata of the .NET assembly reside ?

1). In Global Assembly Cache

2). Stores in the .csproj file of our project

3). Stores in the .sln file of our solution

4). **It stores as part of .exe or .dll itself.**

Q.Select which one will be the correct way to get the class with name Tool from ReflectionTest1.dll with the help of assembly instance created below ?

Assembly assembly = Assembly.LoadFile(@"C:\MyComponents\ReflectionTest1.dll");
1). Type t = assembly.GetClass("ReflectionTest1.Tool");

2). Class t = assembly.GetClass("ReflectionTest1.Tool");

3). Class t = assembly.Get("ReflectionTest1.Tool");

4). **Type t = assembly.GetType("ReflectionTest1.Tool");**

Fill the correct option to complete the following statement.

XXXX are always loaded into the application directory or subdirectory.
1). **Private Assemblies**

2). Shared Assemblies

3). Any .NET DLL's

4). Any .NET EXE's

. Shruti is creating one user defined attribute called as CheckLength.
She needs to apply it only on members of type property.

Select the correct code fulfilling the above requirement.
1). **[AttributeUsage(AttributeTargets.Property)]**
public class CheckLength : Attribute
{
//code goes here
}

2). [Property]
public class CheckLength : Attribute
{
//code goes here
}

3). [Attribute(Targets.Property)]
public class CheckLength
{
//code goes here
}

4). public class CheckLength : PropertyAttribute
{
//code goes here
}

Where do we register shared assemblies before they are used by any client application ?
1). Within the GAC of developers machine

2). **Within the GAC of client machine**

3). Within the Windows Registry of developers machine

4). Within the Windows Registry of client machine

Q. Which of the following are true with repect to reference types:

a. The variable contains a reference to the data
b. Classes are reference types
c. Reference Types are allocated on the stack
d. Assignment to a variable of a reference type creates a copy of the reference but not of the referen ced object.

1). a,b and c are true

2). **a,b & d are true**

3). b,c and d are true

4). All of the above are true

Q. What will be the output of the following code?

```
class Program
   {
      static int num = 88;
      static void Main(string[] args)
      {
         int num1 = 8;

         Console.WriteLine(num + num1);
         Console.WriteLine(num + num1);

         Console.ReadKey();
      }
   }
```

1). Error : Can not access num

2). Error : Variable does not exist

3). **96**
96

4). Can not convert nostatic member to static

Q. Which of the following is not parameter type?

1). out

2). ref

3). params

4). value

5). **in**

Q. Which of the following code represents unboxing?

1).
```
static void Main(string[] args)
      {
         int num = 10;
         float num1;
         num1 = num;
```

```
    }
```

2). static void Main(string[] args)

```
    {
        float num = 10.5f;
        int num1;
        num1 = (int)num;
    }
```

3). static void Main(string[] args)

```
    {
        int num = 10;
        object num1;
        num1 = num;
    }
```

4). **static void Main(string[] args)**

```
    {
        object num = 10;
        int num1;
        num1 = (int)num;
    }
```

Q. A Nullable<bool> can be assigned the following values:

1). TRUE

2). FALSE

3). Null

4). **All of the Above**

Q. Which of the following statement are correct about C# class?

1). **Instance members of the class can be accessed through objects of that class**

2). Class can contain only instance members

3). Class can contain friend function

4). **Class is a blueprint for the objects**

Q. Select which are the correct way to define a Multi Dimensional Array?

1). **int[,] numbers = new int[3, 2] { {1, 2}, {3, 4}, {5, 6} };**

2). **int[,] numbers = new int[,] { {1, 2}, {3, 4}, {5, 6} };**

3). string[] names = new string[3,0] {"Matt", "Joanne", "Robert"};

4). int[,] numbers = new int[0, 5] {1, 2, 3, 4, 5};

have Add.cs and Mult.cs files. I want to compile them into a dll and name it MathLibrary.dll, What would be the correct command to do the same?

1). csc /target:lib /out:MathLibrary.DLL Add.cs Mult.cs

2). **csc /target:library /out:MathLibrary.DLL Add.cs Mult.cs**

3). csc /out:library /target:MathLibrary.DLL Add.cs Mult.cs

4). csc :library :MathLibrary.DLL Add.cs Mult.cs

The array whose elements are arrays is called as _____.
1). Multidimensional Array
2). **Jagged Array**
3). Single Dimensional Array
4). None of the above

. What will be the output of the following Program?

```
using System;
class Example
{
static void swap(ref  int x, ref  int y)
 {
  int temp = x;
  x=y;
  y=temp;
  Console.WriteLine("x = {0}, y = {1} ",x,y);
  }
public static void Main()
  {
   int i= 10, j=20;
   swap(ref i, ref j);
  Console.WriteLine("i = {0}, j = {1} ",i,j);
  }
}
```

1). **x=20, y=10**
i=20, j=10

2). x=10, y=20
i=20, j=10

3). x=20, y=10
i=10, j=20

4). x=10, y=20
i=10, j=20

Which of the following feature in C# provides a more concise, functional programming syntax for writing anonymous methods?
1). Extension Methods
2). **Lambda Expressions**
3). Anonymous Types
4). LINQ

Q. Which of the following statement is not correct about Exception?
1). **Exceptions are typically regarded as compile time anomalies**

2). Exception handling is a technique for dealing with runtime exceptions.

3). Exceptions are notifications that some error has occurred in program.

4). Exception is an event that occurs during the execution of a program that disrupts the normal flow of instructions
during the execution of program.

. Which of the following statements is false in case of an Interface?
1). Each class that includes an interface must implement all of the methods

2). **An Interface can contain only Implementation and no Abstract methods at all.**

3). An Interface can contain only Abstract methods and no Implementation at all.

4). An Interface can be Inherited be another interface

Q. class Employee

```
{
   static Employee()
   {
      Console.WriteLine("Static Employee Constructor");
   }

   public static void Display()
   {
      Console.WriteLine("Employee Display Method");
   }
}
static void Main(string[] args)
{
   Employee.Display();

   Console.ReadKey();
}
```

What will be the ouput of the above code?
1). Employee Display Method

2). **Static Employee Constructor**
Employee Display Method

3). Static Employee Constructor

4). Employee Display Method
Static Employee Constructor

Q.State whether the following given statements are correct with regards to static constructors:

a. Static Constructors can accept parameters
b. Static constructors can be called directly
c. Static constructors are called before the first instance of a class is created
d. If 10 objects are created for a class ,10 times call will be made to the static constructor
e. The access specifier for static constructor should be public

1). **A-false, B-false, C-true, D-false, E-false**

2). A-false, B-false, C-false, D-false, E-false

3). A-true, B-true, C-true, D-false, E-true

4). A-false, B-false, C-true, D-true, E-true

5). A-false, B-false, C-true, D-false, E-true

. Select which statements are False with respect to Abstract classes:

1). An abstract class is the one that cannot be instantiated

2). **An abstract class can not have Non Abstract functions**

3). **Abstract class can be marked as Sealed.**

4). Abstract classes are intended to be used as base classes.

Q. Match the following with reference to access modifiers in CSharp:

Set A
1. private
2. protected
3. internal
4. protected internal

Set B
a) access is not restricted
b) access is limited to the containing class
c) access is limited to the containing class or types derived from the containing class
d) access is limited to the current assembly or types derived from the containing class
e) access is limited to the current assembly

1). **1-b, 2-c, 3-e, 4-d**

2). 1-a, 2-b, 3-c, 4-d

3). 1-c, 2-d, 3-a, 4-e

4). 1-d, 2-b, 3-c, 4-a

Q. You have an abstract class Shape with an Abstract method Draw.
You have another abstract class Shape2D which inherits from class Shape
You have a class Circle that inherits from Shape2D.
All these classes are in the same namespace wherein you also have the Form1 Class.

On the basis of the above class design state whether the following statements are true or false.

a. Shape obj = new Circle();
b. Shape obj = new Shape();
c. Shape obj = new Shape2D();

d. You must implement the Draw method inside the Shape2D class to avoid compilation error.
e. You must implement the Draw method inside the Circle class to avoid compilation error

1). **A-true, B-false,C-false,D-false,E-true**

2). A-true, B-false,C-false,D-false,E-false

3). A-true, B-true,C-true,D-false,E-false

4). A-true, B-false,C-false,D-true,E-true

Q. What is the difference between struct and class?

1). **Struct are Value Type and stored on stack memory, while Class are Reference type and st ored on heap memory.**

2). Struct can not implement multiple interfaces and Class can implement the multiple interfaces.

3). **Struct do not support inheritance except value types, while class support inheritance.**

4). Struct do have a destructor and Class don't have a destructor.

As a Best Coding Practice, any UserDefined Exceptin class must inherit from which class:

1). **ApplicationException**

2). Exception

3). UserDefinedException

4). None of the above

I want to read the contents of a text file named "reminders.txt" and display it on the screen.
What is the correct code snippet to achieve the same?

1). **StreamReader sr = new StreamReader("reminders.txt");**

```
string input = null;
while ((input = sr.ReadLine()) != null)
{
 Console.WriteLine (input);
}
```

2). StreamReader sr = new StreamReader();

```
string input = "reminders.txt";
while ((input = sr.ReadLine()) != null)
{
 Console.WriteLine (input);
}
```

3). StreamReader sr = new StreamReader("reminders.txt");

```
string input = null;
while ((input = sr.Read()) != null)
{
 Console.WriteLine (input);
}
```

4). StreamReader sr = new StreamReader("reminders.txt");

```
string input = null;
while ((input = sr.ReadLine()) )
```

```
{
 Console.WriteLine (input);
}
```

Q.State whether the following assumptions are true or false w.r.t generational Garbage collector:

a. The older an object is, the shorter its lifetime will be
b. The newer an object is, the shorter its lifetime will be
c. Newer objects tend to have strong relationships to each other and are frequently accessed around the same time
d. Older objects tend to have strong relationships to each other and are frequently accessed around the same time

1). **A-false, B-true, C-true, D-false**

2). A-true, B-false, C-true, D-false

3). A-false, B-true, C-false, D-true

4). None of the above

Q. State whether the following statements are true or false:

a. You can avoid some of the members of a serializable object from being serialized
b. BinaryFormatter class is available in System.Runtime.Serialization.Formatters

1). **Both true**

2). Both false

3). **A true, B false**

4). A false, B true

. State whether the following statements are true / false:

1. In C#, only the runtime can destroy objects with the help of GC
2. Managed objects can have destructors

1). **Both are true**

2). Both are false

3). **A true, B false**

4). B true, A false

._____ class listens to the file system change notifications and raises events when a directory, or file in a directory, changes.

1). FileStream

2). FileSystemInfo

3). **FileSystemWatcher**

4). None of the above

Q._____ class exposes instance methods for creating, moving, and enumerating through directories and subdirectories.

1). Directory

2). **DirectoryInfo**

3). File

4). FileInfo

Q.The System.IO namespace contains types that allow synchronous and asynchronous reading and writing on
data streams and files.

1). **True**

2). False

. Select which statements are true or false with respect to Garbage Collector.

1. objects are not destroyed more than once
2. objects are destroyed while they are reachable
3. If the object overrides the Object.Finalize method then this method will be called by the garbage c ollector.
4. You can explicitly override Object.Finalize and you can explicitly call Finalize

1). 1-True, 2-True, 3-True, 4-True

2). **1-True, 2-False, 3-True, 4-False**

3). 1-False, 2-False, 3-True, 4-False

4). 1-False, 2-False, 3-True, 4-True

. Select which statements are true or false with respect to Garbage Collector.

1. objects are not destroyed more than once
2. objects are destroyed while they are reachable
3. If the object overrides the Object.Finalize method then this method will be called by the garbage c ollector.
4. You can explicitly override Object.Finalize and you can explicitly call Finalize

1). 1-True, 2-True, 3-True, 4-True

2). **1-True, 2-False, 3-True, 4-False**

3). 1-False, 2-False, 3-True, 4-False

4). 1-False, 2-False, 3-True, 4-True

Q. Which of the following statement is not correct about TPL?

1). Task parallelism refers to one or nore independent tasks running concurrently

2). TPL is based on the concept of the task

3). **A task represents an asynchronous operation**

4). **It is not efficient to use system resource**

Q.Which of the following statement is not correct about Parallel Extensions set of libraries and tools?

1). These makes concurrent programming easier

2). Makes profiling and debugging concurrent applications easier

3). These enables the applications to scale up without any code as number of cores increases

4). **These do not allow existing applications to be easily parallelized**

Q. Which of the following is not correct about await?
1). The 'await' keyword is applied on the task in an asynchronous method and suspends the executi on of
the method, until the awaited task is not completed

2). **Await blocks the thread on which it is executing**

3). Await signals to the compiler to continue with other async methods, till the task is in an await stat e

4). Once the task is completed, await resumes back where it left off from

Q. Async programming is used for _____.
1). productivity
2). **responsiveness**
3). referencing
4). dereferencing

Q. C# provides access to CLR through dynamic keyword.
1). **TRUE**
2). **FALSE**

At the time of function calling user can use mixture of optional and named parameter.
1). **TRUE**
2). **FALSE**

Q. Optional Parameters should be the last parameters of the method?
1). **TRUE**
2). FALSE

Q. Parallel Programming is used for _____.
1). responsiveness
2). **performance**
3). referencing
4). allocation

Q. Dynamic type will take effect at compile time.
1). **TRUE**
2). **FALSE**

Q. Which of the following is not correct about async?
1). async provides a simpler way to perform potentially long-
running operations without blocking the callers thread

2). The caller of async method can resume its work without waiting for asynchronous method to finis h its job

3). **The method with async modifier has at most one await**

4). async method runs synchronously until the first await expression written in it

DotNet - .NET FW - DQ - S2 - Day 1

Which of these is not the role of CLR?
1). Code Execution

2). Type Safety

3). Garbage Collection

4). **Manage Unmanaged Code**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

What is the work of JIT compiler?
1). Convert Source Code to IL

2). Convert Source to Native

3). **IL to Native**

4). IL to Source

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q.Which of these is responsible for Memory deallocation in a .Net Application during execution time?
1). CLR

2). **Garbage Collector**

3). MSIL

4). Compiler

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of these statements are true wrt .Net Framework?

1. Code which executes under the control of CLR is called as Managed Code
2. JIT compiler converts Source code to Native code

1). **Statement 1 is true**
Statement 2 is false

2). Statement 1 is true
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is false
Statement 2 is true

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. _____ is object-oriented collection of reusable classes.

1). CLR

2). CLS

3). CTS

4). **BCL**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. Which of these statements are true wrt .Net Framework?

1. When we compile a .Net Application, the CIL code created is stored in an Assembly
2. IL is CPU independent set of binary instructions generated by .net language compiler

1). Statement 1 is true
Statement 2 is false

2). **Statement 1 is true**
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is false
Statement 2 is true

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. DLR or Dynamic Language Runtime was added in ____ version of .Net?

1). V 2.0

2). V3.0

3). **V4.0**

4). V3.5

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of these are the .NET core components?
1). **FCL**

2). **CLR**

3). ADO.NET

4). ASP.NET

Solution :
option [1,2] are correct
Attempted :
option [1,2] are attempted

Q. Which of these are true w.r.t .Net Deployment?
1). **No Registration Required**

2). **Zero-impact install**

3). **Side-by-side execution**

4). Required Registry entry

Solution :
option [1,2,3] are correct
Attempted :
option [1,2,3] are attempted

Q. Which of these are the core enhancements of .Net Version 4.5?
1). DLR

2). **Windows 8 support**

3). **Async Mode**

4). Parallel LINQ

Solution :
option [2,3] are correct
Attempted :
option [2,3] are attempted

DotNet - .NET FW - DQ - S2 - Day 2

Q. Which of these in not a legal value for a Nullable<bool> variable?
1). **NotNull**

2). Null

3). TRUE

4). FALSE

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. What is the default access modifier for class member?
1). public

2). **private**

3). protected

4). internal

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. What type of Array is initialized in the below code snippet?

int[] numbers = {1,2,3,4,5};
1). Invalid array declaration

2). Jagged

3). Multi-Dimension

4). **Single Dimension Array**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. Which of these is the default parameter type for a method?
1). ref

2). params

3). **value**

4). out

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of these is the correct syntax of declaring a Jagged array with 2 rows?
1). int[,] myArray = new int[2,2];

2). int(,) myArray = new int(2,2);

3). **int[][] myArray = new int[2][];**

4). int[][] myArray = new int[2][2];

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of these can be a member of class?
1). Events

2). Indexers

3). Methods

4). **All the Above**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. Identify the Error in the following Code.

```
1. class Employee
2. {
3.       public int EmpID;
4.       static Employee(int id)
5.       {  EmpID =  id;  }
6. }
```

1). **static constructor cant take parameters**

2). Line 4 private access modifier is missing

3). Line 4 public access modifier is missing

4). Line 4 protected access modifier is missing

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. Which of these statements are false wrt Data Types?

1. ValueTypes are of Fixed Size and are Stored on the heap
2. String and Arrays are Reference Types

1). Statement 1 is true
Statement 2 is false

2). **Statement 1 is false**
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is true
Statement 2 is true

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of these is not a salient feature of C#?
1). **Unsafe operation are supported in C#**

2). Pointers are not supported in C#

3). C# is Object Oriented

4). C# is scalable

5). C# is type safe

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q.Which of these command would you use to execute a c# program from Command Prompt?
1). csc /t:library Hello.cs

2). **csc /t:exe Hello.cs**

3). **csc /t:Module Hello.cs**

4). csc /r:Hello.cs

Solution :
option [2] is correct
Attempted :
option [3] is attempted

DotNet - .NET FW - DQ - S2 - Day 3

Q. What's the output of the following code?

```
int res = 0;
try{
    res = 10/0;
 }
 catch {
    Console.WriteLine("Error");
 }
 catch(DivideByZeroException ex) {
   Console.WriteLine("oops Error occurred")
 }
 finally {
   Console.WriteLine("Result " + res);
 }
```

1). Error
Result 0

2). oops Error occurred
Result 0

3). Error
oops Error occurred
Result 0

4). **Compile Time Error**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. With respect to the following code whats the output?

```
public void DoSome(int n1,int n2,out int n3)
{
```

```
        int res = n1 + n2;
        Console.WriteLine("Result: {0}",res);
}
```

1). print the result of n1 + n2

2). **Compile time error.**
Out parameter is not assigned

3). Out parameter should be first in the parameter list

4). Method with void return type cant take out parameter

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. What is the role of finally block?
1). throw exceptions

2). handle exceptions

3). **clean up code or release resources**

4). catch exceptions

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of these statements are true wrt Exceptions?

1. Runtime errors are called as Exceptions, and can be handled
2. All built-In or User-Defined Exceptions are classes

1). Statement 1 is true
Statement 2 is false

2). **Statement 1 is true**
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is false
Statement 2 is true

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of these is the intended base class for user defined exception?
1). Exception

2). Object

3). **ApplicationException**

4). SystemException

Solution :
option [3] is correct

Attempted :
option [3] is attempted

Q. Which of these statements is/are true wrt asbtrsact class?

1. Abstract method must be inside an abstract class
2. Abstract class must have an abstract method

1). **Statement 1 is true**
Statement 2 is false

2). Statement 1 is false
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is true
Statement 2 is true

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. Adding sealed keyword to the class would stop _____.

1). Object Creation

2). Overriding

3). Overloading

4). **Inheritance**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. Which of these is not a feature of abstract class?

1). abstract class can't be instantiated

2). **abstract class can be a sealed class**

3). abstract class can have fields

4). abstract class can have method with implementation

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Consider the following code snippet.
Which type of property declaration is d1?

```
public class Person
{
        public int Id{ get;  set; }
        public string Name { get;  set; }
}
```

1). Read Write Property

2). Read Only Property

3). Write Only Property

4). **Auto Implemented Property**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. Indexers are created to access _____.
1). fields

2). both fields and arrays

3). **arrays**

4). None of them

Solution :
option [3] is correct
Attempted :
option [3] is attempted

DotNet - .NET FW - DQ - S2 - Day 4

Q. Which keyword is used to specifying constraints for generics type parameters?
1). **where**

2). type

3). typeof

4). constraint

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. What is the default growth factor for the queue class?
1). 1.2

2). 2.2

3). 3.3

4). **2.0**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. Which of the following types do not support Generics?
1). interface

2). delegate

3). struct

4). **enum**

Solution :
option [4] is correct

Attempted :
option [4] is attempted

Q. Which of these is not a valid Generic Type constraint?
1). class

2). struct

3). interface

4). **delegate**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. _____ is an object that provides a forward, read-only cursor for a set of items
1). IEnumerator

2). **IEnumerable**

3). IComparable

4). IComparer

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q._____ is a method, get accessor or operator that enables you to support foreach loop in a class or struct without having to implement the entire IEnumerable interface
1). Enumerable

2). return

3). **Iterator**

4). yield

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. What is the return type of MoveNext method of IEnumerator?
1). **bool**

2). void

3). int

4). byte

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. Which of these statements are true wrt Generics?

1. Generics permit classes, structs, interfaces, delegates and methods to be parameterized by the types of data they store and manipulate.

2. The type parameter T acts as a placeholder until an actual type is specified at use.
1). Statement 1 is true
Statement 2 is false

2). **Statement 1 is true**
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is false
Statement 2 is true

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of these is the base Interface which implemented by all collection classes?
1). IList

2). ICollect

3). **ICollection**

4). IQueue

Solution :
option [3] is correct
Attempted :
option [3] is attempted

. How to create a generic method in C# (identify the correct syntax) ?
1). public class Test
{
public T Print<dynamic t>()
{ return T; }
}

2). public class Test<T>
{
public void Print<T t>()
{ }
}

3). **public class Test**
{
public void Print<T>()
{ }
}

4). N1 of the above

Solution :
option [3] is correct
Attempted :
option [3] is attempted

DotNet - .NET FW - DQ - S1 - Day 5

Q.Which of the following is the correct way to declare a delegate for calling the function func() define
d
in the sample class given below?

```
class Sample
{
   public int func(int i, Single j)
   {
      /* Add code here. */
   }
}
```

1). delegate int (int, single);

2). delegate void d(int, Single);

3). **delegate int d(int i, Single j);**

4). delegate int sample.func(int i, Single j);

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of the following expression will give the output area of circle?

1).
```
delegate float AreaDelegate(float val);
    static void Main(string[] args)
    {
       AreaDelegate adel = r => 3.14f * r * r;
       float area = adel(2.5f);
       Console.WriteLine(area);
       Console.ReadKey();
    }
```

2).
```
delegate float AreaDelegate(float val);
    static void Main(string[] args)
    {
       AreaDelegate adel = 3.14f * r * r;
       float area = adel(2.5f);
       Console.WriteLine(area);
       Console.ReadKey();
    }
```

3).
```
delegate float AreaDelegate(float val);
    static void Main(string[] args)
    {
       AreaDelegate adel => 3.14f * r * r;
       float area = adel(2.5f);
       Console.WriteLine(area);
       Console.ReadKey();
    }
```

4). delegate float AreaDelegate(float val);

```
static void Main(string[] args)
{
    AreaDelegate adel = area => 3.14f * r * r;
    float area = adel(2.5f);
    Console.WriteLine(area);
    Console.ReadKey();
}
```

Solution :
option [1] is correct

Q. Left side of the Lambda operator specifies _____.
1). **Input Parameters**

2). Expression

3). Statement block

4). Expression or Statement block

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. Given:

```
class SomeClass
{
   delegate void SomeDelegate();
   public void InvokeMethod()
   {
      SomeDelegate del = delegate()
                  {                        Console.WriteLine("Hello");
                  };
      del();
   }
}
```

The above code in bold is an anonymous method of C# 2.0. Replace it by a Lambda Expression.
1). **SomeDelegate del = () =>Console.WriteLine("Hello");**

2). SomeDelegate del =>Console.WriteLine("Hello");

3). **SomeDelegate del() =>Console.WriteLine("Hello");**

4). SomeDelegate del = Console.WriteLine("Hello");

Solution :
option [1] is correct
Attempted :
option [3] is attempted

Q. State whether the following statements are true w.r.t Delegates:

a. A delegate is a reference type that represents a method with a specific signature and return type.

b. Delegates are used to decide the function call at Runtime

1). **Both are true**

2). Both are false

3). A true, B false

4). B false, A True

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. Anonymous methods can access ref or out parameters for defining methods:
1). TRUE

2). **FALSE**

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. How are Delegates useful?
1). you can decide which Namespace to call at runtime

2). you can decide which Class to call at runtime

3). **you can decide which Method to call at runtime**

4). you can decide which Structure to call at runtime

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Predict the output:

```
public delegate void dname();
class DelegateDemo
{
public void m1()
{
MessageBox.Show("From m1");
}
public void m2()
{
MessageBox.Show("From m2");
}
}

private void button1_Click(object sender, EventArgs e)
{
DelegateDemo obj = new DelegateDemo();
dname d1 = new dname(obj.m1);
dname d2 = new dname(obj.m2);
dname d3;
```

d3 = d1 + d2;
}
1). From m1

2). From m1
From m2

3). **Nothing will be displayed**

4). From m2

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q.Suppose when user pushing a button an object is to be notified, but it is not known until runtime w hich object
should be notified. Which of the following programming constructs should be used to implement this ?

1). **Delegates**

2). Attributes

3). Pointers

4). Method Overriding

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. Which of the following delegate will call the both the methods given below?

```
class Program
{
    static void UpperCase(string str)
    {
        Console.WriteLine(str.ToUpper());
    }

    static void UnarySum(int num)
    {
        Console.WriteLine(1 + num++ + 1);
    }
}
```

1). delegate void MyGenericDelegate(T arg);

2). delegate void MyGenericDelegate<int, string>(T arg);

3). delegate void MyGenericDelegate<T>(arg);

4). **delegate void MyGenericDelegate<T>(T arg);**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

DotNet - .NET FW - DQ - S2 - Day 6

Q. Which of these is the base class from which the below classes are inherited?

BufferStream and MemoryStream
1). FileStream

2). NetworkStream

3). StreamReader

4). **Stream**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. Which of these is/are not a valid Serialization Formatter?
1). **Xml Formatter**

2). SOAP Formatter

3). **String Formatter**

4). Binary Formatter

Solution :
option [1,3] are correct
Attempted :
option [1,3] are attempted

Q. Which of these in not the role of Garbage Collector?
1). Manages the allocation of memory for an application

2). **Does not compact the heap after collection**

3). Moves the pointer to the next available address in the heap

4). Releases allocated memory when object gets removed from the heap

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of these statements are true wrt destructor in a class?

1. The compiler converts destructor into Finalize method
2. Can be declared in both class and struct

1). **Statement 1 is true**
Statement 2 is false

2). Statement 1 is true
Statement 2 is true

3). Statement 1 is false
Statement 2 is false

4). Statement 1 is false
Statement 2 is true

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q. How can you enable your class to initialize a nonserialized data member automatically?

1). Use Binary Serialization

2). **Implement IDeserializationCallback**

3). Implement SerializationCallback

4). Use SOAP serialization

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of these statements are false wrt Serialization?

1. Binary Serialization can serialize only public members of an Object
2. Xml Serialization can serialize both public and non public members of an object

1). Statement 1 is true
Statement 2 is false

2). Statement 1 is true
Statement 2 is true

3). **Statement 1 is false**
Statement 2 is false

4). Statement 1 is false
Statement 2 is true

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of these are the reason for implementing IDisposable interface?

1). To release unused memory

2). To Deallocate memory of
out of scope objects

3). **To release unmanaged**
resources

4). To deallocate memory
held by value types

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of these built-In class is a static class?
1). FileInfo

2). DirectoryInfo

3). **File**

4). Stream

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. With respect to the below statements identify which process is explained.

1. Convert raw heap memory into object using constructor
2. You can't use constructor without new keyword
1). object allocation

2). **object initialization**

3). finalization

4). object deallocation

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of these is not a feature of Serialization?
1). **It's a process of writing the state of an object to a byte stream**

2). **To save the state of your**
application to a persistence storage area.

3). **It's a process of storing the**
state of an object into a byte format for saving on disk or transporting over a ne2rk

4). To reduce the size of the
memory consumed by the object in the heap

DotNet - .NET FW - DQ - S1 - Day 7

Q.You have created a class library named ClientLogic to which you want to add a strong name ke y and
get the same registered in the GAC. What are the command that you need to give on the Visual Stu dio
command Prompt to get this done?
1). **sn -k ClientLogic.snk**

2). **gacutil -i ClientLogic.dll**

3). gacutil -u ClientLogic

4). sn -k ClientLogic

Solution :
option [1,2] are correct
Attempted :
option [1,2] are attempted

Q. _____contains all the metadata with the:

1. Version of assemblies
2. Scope of assemblies
3. Reference to resource and class
4. Stored in Portable Executable file (PE) or in MSIL.

1). **Metadata**

2). **Mainfest**

3). Assembly

4). MSIL

Solution :
option [2] is correct
Attempted :
option [1] is attempted

Q. C# supports late-binding using a new keyword _____.

1). new

2). **dynamic**

3). override

4). virtual

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. State whether the following statements are true / false:

a. Only dynamic assemblies contain a collection of data that describes how the elements in the assembly relate to each other
b. The assembly manifest contains all the metadata needed to specify the assembly's version requirements and security identity

1). **A False, B True**

2). A False, B False

3). A True, B True

4). A True, B False

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q.A custom attribute declaration begins with the AttributeUsageAttribute, which defines some of the key
characteristics of your attribute class.What are the various values which you can specify for this?
1). **AttributeTargets.Class**

2). AttributeTargets.Field

3). **AttributeTargets.Method**

4). **AttributeTargets.All**

Solution :
option [1,3,4] are correct
Attempted :
option [1,3,4] are attempted

Q. All the APIs related to reflection are located under _____ namespace.
1). System.Data.Reflection

2). **System.Reflection**

3). System.Runtime.Reflection

4). Runtime.Reflection

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of the following are parts of Assembly's Manifest?

1. Assembly Name
2. Version Number
3. Culture
4. Information on referenced assemblies
5. Weak Name Information
6. Strong Name Information
7. File Name
8. Information on system assemblies

1). 1, 2, 3, 4 & 5

2). 1, 2, 6, 7 & 8

3). **1, 2, 3, 4 & 6**

4). 1, 2, 3, 6 & 7

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q.To enable the runtime to provide services to managed code, language compilers must emit _____ _____.
1). **Metadata**

2). MSIL

3). Assembly

4). Portable Executables

Solution :
option [1] is correct
Attempted :
option [1] is attempted

Q.What is the correct code snippet to Load the Assembly in order to obtain some information with R eflection?
1). Assembly myassembly = Assembly.Load("employee.dll");

2). Assembly myassembly = Assembly.LoadFrom();

3). Assembly myassembly = Reflection.LoadFrom("employee.dll");

4). **Assembly myassembly = Assembly.LoadFrom("employee.dll");**

Solution :
option [4] is correct
Attempted :
option [4] is attempted

Q. To define our own attributes, the class must inherit from:
1). **System.Attribute**

2). System.Type

3). AttributeClass

4). Runtime.Attribute

Solution :
option [1] is correct
Attempted :
option [1] is attempted

DotNet - .NET FW - DQ - S2 - Day 8

Q. Which of the following namespaces contains API for Task Parallel Library?
1). System.Task

2). System.Task.Threading

3). **System.Threading**

4). **System.Threading.Task**

Solution :
option [3,4] are correct
Attempted :
option [3,4] are attempted

Q. Which of the following supports late binding in c#?
1). optional

2). named

3). **dynamic**

4). object

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q.Optional argument is way to provide an argument using its parameter name, instead of relying on i ts position in the argument list
1). TRUE

2). **FALSE**

Solution :
option [2] is correct
Attempted :
option [2] is attempted

Q. Which of the following namespace provides a set of extension methods for PLINQ?
1). System.Linq

2). System.Linq.Parallel

3). **System.Linq.ParallelEnumerable**

4). System.Linq.Parallel.Enumerable

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of the following is not Business need for Parallelization?
1). Need Continuous and Higher Performance to support Complex Processing & Larger Data sets

2). Manage Computational and Data Intensive Applications

3). **Develop asynchronous applications**

4). Develop More Responsive applications

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Match the following
Column A

1. Data Parallelism

2. Task Parallelism

Column B(Attempted)

1. Breaks the program into multiple task

2. Divides data across multiple processors for execution

Solution

1. Divides data across multiple processors for execution

2. Breaks the program into multiple task

Q. Identify True or False Statement:

1 : Dynamic type are interpreted by Dynamic Language Runtime
2 : Covariance and Contravariance can be applied to structure and enumeration
1). Both are True

2). Both are False

3). **Statement 1 is True and Statement 2 is False**

4). Statement 1 is False and Statement 2 is True

Solution :
option [3] is correct
Attempted :
option [3] is attempted

Q. Which of the following are not features of Tasks?
1). Lightweight

2). **Run on single core**

3). Can return a value

4). **Fire and Forget**

Solution :
option [2,4] are correct
Attempted :
option [2,4] are attempted

Q. Which of the following looping constructs are supported in parallel programming?
1). For.Parallel

2). **Parallel.For**

3). **Parallel.ForEach**

4). ForEach.Parallel

Solution :
option [2,3] are correct

Attempted :
option [2,3] are attempted