**C# .NET QUIZ**

1) An instance variable

a) is an object of a class

b) represents an attribute of an object

c) is a method of a class

d) a and c

2) A Constructor

a) is used to create objects

b) must have the same name as the class it is declared within

c) maybe overloaded

d) b and c

e) all of the above

3) Assuming that public class B : A { public B(int i) :base(i) { } } compiles and runs correctly, what can we conclude about the constructors in the class A?

a) One constructor takes an argument of type i

b) There is only a default constructor

c) One constructor takes an arguments of the type int

d) a and b

4) A delegate defines

a) a Washington representative

b) a class that encapsulates methods

c) a means of passing arrays into methods

d) a substitute for an inherited method

5) In order for a class to use an interface, it must

a) inherit the properties of the interface

b) contain the same methods as the interface

c) create an interface object

d) a and b

e) all of the above

6) Synchronization is:

a) the delaying of a thread until there is sufficient memory and work to keep it up

b) making every thread start and end at the same time

c) make each thread do the same thing

d) have each thread start at the same time but not necessarily finish together

e) wait until the required resources, that are used by other threads become available

7) Polymorphism occurs when the methods of the child class.

a) Override the parent class methods but maintain the implementation

b) Maintain the same return type and arguments as the parent class, but implement it differently

c) Have different return types and arguments than the parent class

d) Are Virtual

8) A method\_\_\_\_\_an exception when that method detects that a problem has occurred.

a) Trys

b) Catches

c) Throws

d) Exception

e) a and b

9) Class String and the Char structure found in the:

a) System.Strings namespace

b) System.Text namespace

c) System.Chars namespace

d) System namespace

10) If an IndexofAny method is passed an array of characters it:

a) finds the first occurrence of each letter in the string

b) searches for the first occurrence of any of the characters in the string

c) will search for the first occurrence of the sequence of characters

d) generates an error

Answer:  
1. B 2. E 3. A 4. C 5. D 6. B 7. B 8. C 9. B 10. B

**Coding Test**

1. Please write an algorithm to **add up all the values in an array of integer**

public int SumArray(int[] array)

{

int total = 0;

foreach (int item in array)

{

total += item;

}

return total;

}

1. Write in C# if possible, if not just use any computer language or algorithm language the code:

Inside a table of ‘n’ cells, we want to **get the last position of the smallest number**.

**Your algorithm should return 8 in the following example**:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Table** | **8** | **5** | **2** | **8** | **6** | **3** | **7** | **2** | **5** | **5** |
| Position | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|  |  |  |  |  |  |  |  |  |  |  |

1. Please write an algorithm (in C# if possible, if not just use any language) **how to determine if a number or text is a palindrome**?
2. Write an algorithm which **reads six numbers andsorts them in descending order**.

**Input**

Input consists of six numbers:

The six numbers are separated by a space.

**Output**

Print the ordered numbers in a line. Adjacent numbers should be separated by a space.

**Sample Input**

**3 6 9 7 5 4**

**Output for the Sample Input**

**9 7 6 5 4 3**

**Output Test**

1. What may be the output of the following program?

namespace Testing

{

classProgram

{

staticvoid Main(string[] args)

{

B bObj = newB();

Console.ReadLine();

}

}

publicclassA

{

public A()

{

Console.WriteLine("Hi you are in class A");

}

}

publicclassB : A

{

public B()

{

Console.WriteLine("Hi you are in class B");

}

}

}

Answers :   
**Hi you are in class A**

**Hi you are in class B**

1. What may be the output of the following program?

namespace Testing

{

classProgram

{

staticvoid Main(string[] args)

{

string[,] words = newstring[,]

{

{"ONE", "TWO"},

{"THREE", "FOUR"},

{"FIVE", "SIX"}

};

for (int i = 0; i < words.Length / 2; i++)

{

string s1 = words[i, 0];

string s2 = words[i, 1];

Console.WriteLine("{0}, {1}", s1, s2);

}

}

}

}

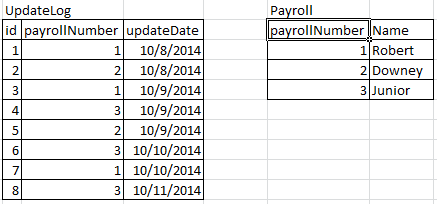
Answer :   
ONE, TWO

THREE, FOUR

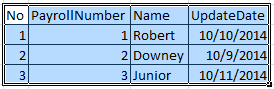
FIVE, SIX

**SQL Test**

1. Given these two table



Please write an SQL Query to determine the latest update date for each payroll. The result set should return like this



Answers :  
select

row\_number() over (order by max(updatedate) desc) as no,

p.payrollnumber as payrollnumber,

p.name,

max(u.updatedate) as updatedate

from payroll p

left join updatelog u on p.payrollnumber = u.payrollnumber

group by p.payrollnumber, p.name

order by updatedate desc

1. Given a table as below

|  |  |
| --- | --- |
| Name | Nominated For |
| Naruto | Best Actor |
| Sasuke | Best Actor |
| Sakura | Best Actress |
| Luffy | Best Figthing Scene |
| Ace | Best Death Scene |
| Naruto | Best Figthing Scene |
| Ace | Best Dialog |

Please create a user defined stored procedure to define which person that been nominated more than one and please write how to execute that stored procedure that you have been created.

SP :  
CREATE PROCEDURE FindNomination

AS

BEGIN

SELECT Name, COUNT(\*) AS NumNominations

FROM dbo.Naruto

GROUP BY Name

HAVING COUNT(\*) > 1;

END  
  
EXECUTE :  
EXEC FindNomination