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**.NET TEST**

**Time allowed: 30 minutes**

**NAME:**

**DATE:**

**Question # 1**

Consider the following piece of code

for (int i=0; i<2; i++) {

for (int j=0; j<3; j++) {

if (i==j) continue;

Console.WriteLine("i={0} j={1}, i, j);

}

}

Which lines would be the part of output?

|  |  |
| --- | --- |
| 1. i=0 j=1 | 1. i=0 j=2 |
| 1. i=1 j=0 | 1. i=1 j=2 |
| 1. i=2 j=1 |  |

**Question # 2**

Identify the correct piece of code for displaying the text "Good Morning Sir"

A.

using System;

class First {

public static void Main() { Console.WriteLine("Good Morning Sir") }

}

B.

class First {

public static void Main() { System.Console.WriteLine("Good Morning Sir"); }

}

C.

using System;

class First {

public static void Main() { Console.Writeln("Good Morning Sir"); }

}

D.

class First {

public static void Main() { System.Console.Println("Good Morning Sir"); }

}

**Question # 3**

Study the following code snippet and state the output.

using System;

class School {

private int classes;

public School() {

classes = 56;

}

public School(int num) {

classes = num;

}

public static void Main() {

School Primary = new School();

School Secondary = new School (45);

Console.WriteLine("Primary Classes = {0}, Primary.classes);

Console.WriteLine("Secondary Classes = {0}", Secondary.classes);

}

}

|  |  |
| --- | --- |
| A.  Primary Classes = 56;  Secondary Classes = 45 | B.  Primary Classes = 56;  Secondary Classes = 56 |
| C.  Primary Classes = 45;  Secondary Classes = 56 | D.  Primary Classes = 45;  Secondary Classes = 45 |

**Question # 4**

Which of the following program will execute without errors at compile time.

|  |  |
| --- | --- |
| A.  class Object{  static void main(){}  } | B.  class Object{  static void Main(){}  } |
| C.  Class Object{  static void Main(){}  } | D.  class Object{  public static void Main(){}  } |
| E.  class Object{  static void Main(){};  } |  |

**Question # 5**

What is the output of the following code?

using System;

class @Var {

static void @Test() {

int @Test;

int[] @Var = new int[3] { 1, 2, 3 };

@Test = 100 \* @Var[1];

Console.WriteLine(@Test);

}

static void Main() {

Test();

}

}

|  |  |
| --- | --- |
| 1. Compile time error | 1. The code will display 100. |
| 1. The code will display 200. | 1. Runtime error. |

**Question # 6**

What is the output of the following code?

using System;

class UsingDemo {

static void Main() {

int? i = 5;

int j = 10;

int? k = null;

Console.WriteLine("Sum: {0}", i + j+ k);

}

}

|  |  |
| --- | --- |
| 1. Compile time error | 1. Runtime error |
| 1. Sum: null | 1. Sum: |
| 1. Sum: 15 |  |

**Question # 7**

How can you initialize an array of Boolean with true values?

1. bool[] b=new bool[3];
2. bool[] b={true, true, true};
3. bool[] b=new bool[3] = {true, true, true};
4. bool[] b=new bool[3]{true, true, true};

**Question # 8**

Which of the following are valid identifiers?

|  |  |
| --- | --- |
| 1. Void | 1. \_void |
| 1. @void | 1. \_var |

**Question # 9**

Which of the following array declarations are correct?

1. int[,] a= {{1, 2},{3, 4}};
2. int[][] a= {{1, 2},{3, 4}};
3. int a[][]= {{1, 2},{3, 4}};
4. int a[, ] = {{1, 2},{3, 4}};

**Question # 10**

The manifest of an assembly in C# contains:

1. Names and hashes of other assemblies that this assembly is dependent on.
2. Names of all the files in the assemblies.
3. Details of all the types and resources defined in the assembly.
4. Details of access modifiers used in the assemblies.

**Question # 11**

Study the following code segment and state the output.

using System;

class Test {

static void Main() {

int[] arr1 = {7, 5, 8, 4, 6, 2, 3};

Array.Sort(arr1);

Show(arr1);

}

public static void Show(Array myArr) {

foreach(int x in myArr) {

Console.Write(x);

}

}

}

|  |  |
| --- | --- |
| 1. 7584623 | 1. 2345678 |
| 1. 8765432 | 1. Compiler error |
| 1. Runtime error |  |

**Question # 12**

What happens on compiling the following piece of code?

using Gloubus;

using Elco;

class Shop {

static void Main() {

Westerns myDress = new Westerns();

}

}

*Note:* The class Westerns exists in both the namespaces Globus and Elco.

1. The compiler will call the Westerns class from the Globus namespace.
2. The compiler will not know which Westerns class to call and hence, generates an error.
3. Runtime error.
4. The compiler will call the Westerns class from the Elco namespace.

**Question # 13**

What are the benefits of using Namespaces in C#?

1. They help avoid naming conflicts.
2. They help us organize our code.
3. They help in reducing complexities when we want to reuse the code in some other application.
4. They allow developers and business analysts work together to define and modify business processes shared between applications.

**Question # 14**

Abstract classes can have:

1. Only Abstract Methods
2. Only Non-Abstract Methods
3. Neither Abstract nor Non-Abstract methods
4. Both Abstract and Non-Abstract methods

**Question # 15**

How are methods overloaded in C#?

1. By specifying different number of parameters.
2. By specifying different types of parameters.
3. By overloading on the return type of the method.

**Question # 16**

When is a destructor called in C#?

1. When a object is destroyed.
2. When the Garbage Collector performs a clean up.
3. When a class is destroyed.
4. C# does not support the concept of destructor.
5. When the program flow meets the destructor statement.

**Question # 17**

Which of the following statement/s with reference to constructors in C# is/are true?

1. A constructor is called every time an instance of the class is created.
2. A constructor is used for initialization.
3. A constructor has the same name as the class.
4. A constructor always returns a integer value which indicates the number of instances creates.

**Question # 18**

The ..... method of the Console class is used to accept user input.

|  |  |
| --- | --- |
| 1. Console.ReadLine() | 1. Console.GetData() |
| 1. Console.Scanf() | 1. Console.AcceptData() |
| 1. Console.InputData() |  |

**Question # 19**

Spot the bugs in the following code snippet.

01: using System;

02: /\* My first programme in C# \*/

03: class Myclass

04: {

05: public static void Main()

06: {

07: System.Console.WriteLine("Good Morning")

08: }

09: }

1. Line 02: comments should be included in the beginning of a C# program.
2. Line 05: Data members are public by default in C#, hence the keyword public should not be included in the Main() function definition.
3. Line 07: Semicolon(;) missing
4. There is no bug

**Question # 20**

What will happen if we try and execute the following piece of code?

using System;

class Myclass {

static void Main() {

string myage;

myage = 30. ToString();

}

}

1. The code will generate a compilation error.
2. The code will store the number 30 in the variable my age.
3. The code will display a warning "Type mismatch".
4. The code will generate a runtime error.

**Question # 21**

Identify the Reference Data Types from the list given below.

|  |  |
| --- | --- |
| 1. Classes | 1. Arrays |
| 1. Enumerations | 1. Structures |
| 1. Interfaces |  |

**Question # 22**

Study the following piece of code and state the output.

using System;

class A

{

public static void Main()

{

int[] Arr1 = new int[3];

Console.WriteLine(10 \* Arr1[1]);

}

}

1. 0
2. 10
3. Warning: Array is not initialized
4. Compiler error
5. Runtime error

**Question # 23**

Read the following piece of code and point out the error.

01: /\* This is my first program in C# \*/

02:

03: class First

04: {

05: static void main()

06: {

07: using System;

08: Console.WriteLine("Welcome to Aptech");

09: }

10: }

1. Line 01: Comments in C# should begin with "\*/" and end with "/\*"
2. Line 05: The keyword public is missing in the Main() function definition.
3. Line 05: In main() function, M must be in upper case.
4. Line 07: The Using directive must be specified at the beginning of the program.

**Question # 24**

Which of the following statement/s with reference to Delegates is/are true?

1. A delegate contains a reference to the method name rather than the method.
2. Using delegates, we can decide which method to call, at runtime.
3. Using delegates, we can call a method without actually knowing its name.
4. A delegate connects a name with the specification of a method.

**Question # 25**

Consider the following program, what is the output?

using System;

class Book {

int num1=1;

int num2;

public static void Main() {

int num3=3;

Console.WriteLine(num1+num2+num3);

}

}

|  |  |
| --- | --- |
| 1. 4 | 1. 0 |
| 1. Compiler error | 1. Runtime error |

**Question # 26**

What is the output?

class A {

public int FuncA() { return(FuncB()\*FuncC()); }

public virtual int FuncB() { return(5); }

public int FuncC() { return(12); }

}

class B:A {

public override int FuncB() { return(10); }

}

class test {

public static void Main() {

B obj1 = new B();

System.Console.WriteLine(obj1.FuncA());

}

}

|  |  |
| --- | --- |
| 1. 50 | 1. 60 |
| 1. 120 | 1. Compiler error |
| 1. Tuntime error |  |

**Question # 27**

The WriteLine method is a member of the ..... class.

|  |  |
| --- | --- |
| 1. Console | 1. Object |
| 1. System | 1. Stream |

**Question # 28**

All the members of class in C# are ..... by default.

|  |  |
| --- | --- |
| 1. private | 1. public |
| 1. protected | 1. internal |

**Question # 29**

Which of the following statement/s with reference to the Main() function in C# is/are true?

1. Each class has only one static void Main() function.
2. It is the first function that is called when program execution begins.
3. It is mandatory to declare the Main() unction with the keyword public.

**Question # 30**

In C#, we can use variables which clash with keywords by prefixing the identifier with the .....

|  |  |
| --- | --- |
| 1. & | 1. @ |
| 1. $ | 1. # |
| 1. % |  |

**~ The end ~**