COURSE CODE: 12B1WCI734   MAX. MARKS: 15

COURSE NAME: C# and VB.Net

COURSE CREDITS: 3   MAX. TIME: 1 Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q.1   [CO 1- 3] **Multiple Choice Questions** [Please select the correct statement (one)]   (1*5)

1.1. Choose the output for the following set of code.

```
1.      static void Main(string[] args)
2.      {
3.        char c = 'g';
4.        string s = c.ToString();
5.        string s1 = "I am a human being" + c;
6.        Console.WriteLine(s1);
7.        Console.ReadLine();
8.      }
```

a) I am a human bein c
b) I am a human being
c) I am a human being c
d) I am a human bein

1.2. What is the output.

```
using System;
public class Program
  {
      public static void Main(string[] args)
      {
        int num1 = 20;
        int num2 = 30;
        num1 ^= num2 ^= num1 ^= num2;
        Console.WriteLine(num1 + "," + num2);
      }
  }
```

a) 20,30
b) 0,20
c) 20,10
d) 10,50

1.3. Select error in the given program :

```
1.      Static Void Main(String[] args)
2.      {
3.        const int m = 100;
```

```
4.          int n = 10;
5.          const int k = n / 5 * 100 * n ;
6.          Console.WriteLine(m * k);
7.          Console.ReadLine();
8.      }
```

a) 'k' should not be declared constant
b) Expression assigned to 'k' should be constant in nature
c) Expression (m * k) is invalid
d) 'm ' is declared in invalid format

1.4. Correct output for code is?
```
1.      static void Main(string[] args)
2.      {
3.          float a = 10.553f;
4.          long b = 12L;
5.          int c;
6.          c = Convert.ToInt32(a + b);
7.          Console.WriteLine(c);
8.      }
```
a) 23.453
b) 22
c) 23
d) 22.453

1.5. Verbatim string literal is better used for ?
a) Convenience and better readability of strings when string text consist of backlash characters
b) Used to initialize multi line strings
c) To embed a quotation mark by using double quotation marks inside a verbatim string
d) All of the mentioned

Q.2   [CO 1] (a) What is Common Language Runtime in C#. Discuss Functions Components of CLR   (3)
        with illustration?

        [CO 1] (b) What is IL Code, CLR, CTS, CLS & JIT?   (2)

Q.3   [CO 3] Write a program in C# Sharp to generate all possible permutations of an array using   (5)
        recursion.

Test case :
Input the number of elements to store in the array [maximum 5 digits] :3
Input 3 number of elements in the array :
element - 0 : 1
element - 1 : 2
element - 2 : 3
Expected Output :
The Permutations with a combination of 3 digits are :
123 132 213 231 321 312