
INSTRUCTIONS: Answer ALL questions

a) Define the following terms as used in C# programming

- i) sealed class
- ii) new method
- iii) Indexers

[6 marks]

b) Explain any three limitations of using arrays as opposed to collections.

[3 marks]

c) Briefly explain the following types of collections

- i). ArrayList
- ii). HashTable

[4 marks]

d) Given a list of integers (1, 2, 3, 4), write C# code for inserting these numbers into

- i). Array
- ii). ArrayList

[4 marks]

e) Differentiate between System.Text.StringBuilder class and System.String class

f) What is the output produced by the following program

[3 marks]

```
using System;
class DemoString
{
    public static void Main()
    {
        string s1="Lean";
        string s2=s1.Insert(3,"r");
        string s3=s2.Insert(5,"er");
        string s4=s3.Substring(4);
        Console.WriteLine(s2);
        Console.WriteLine(s3);
        Console.WriteLine(s4);
    }
}
```