Student Number |__|__|__|__|__|__|__|__|

Family Name   _____

First Name   _____

Curtin University

School of Information Systems

LAB TEST 2

Semester 2, 2016

ISYS2001 Business Application Design

This paper is for Curtin students

This is an OPEN BOOK test

| **Test Duration** | 90 mins |

| **Reading Time** | 5 minutes |

Students are permitted to write notes during reading time in the margins of the exam paper

| **Total Marks** | 50 |

Supplied by the Student

No calculators are permitted in this exam

Instructions to Students

This is an open book test. Students may use any textbook during this test.

Microsoft Visual Studio C# projects written in conjunction with this test must be compressed into a SINGLE zip archive and uploaded to Blackboard by the end of the test.

All design documentation must be drawn in this test booklet.

For Examiner Use Only

Q	Mark
1	10
2	10
3	10
4	20

Total   _____

QUESTION 1.

(a) What are the three programming constructs?

(3 marks)

(b) What is a method?

(1 mark)

(c) What is an event handler?

(1 mark)

(d) What is the difference in pass-by-value and pass-by-reference?

(3 marks)

(e) What is a backing field?

(2 marks)

(10 Marks)

QUESTION 2.

(a) Write a C# method to swap two integers.

(3 marks)

(b) Explain the following code.

```
StreamWriter outputFile;
outputFile = File.CreateText("numbers.txt");
for(int counter = 1; counter <= 100; counter++)
{
        if(counter%2 == 0)
        {
          outputFile.WriteLine(counter.ToString());
        }
 }
 outputFile.Close()
```

(7 marks)
(10 Marks)

QUESTION 3.

Design a class named Account, which has the following properties:

- Name – the name property holds the name of the account

- Type – the type property holds the type of account. It can be either a Checking, Savings or Investment account.

- Balance – the balance property holds the current balance of the account.

Make sure you include the default constructor and the special methods that set and get values for the corresponding fields.

(10 Marks)

QUESTION 4.

Create a C# application in Visual Studio 2012, that reads a list of names from a file, sorts the names and displays the sorted names in a listBox. The application should use the openFileDialog control to let the user select the file.

(20 Marks)

END OF TEST PAPER