Benha University
Faculty of Engineering (at Shoubra)
Surveying Engineering Department $1^{\text {st }}$ Year

Attempt the following questions.

Midterm Exam
Subject: Computer Applications - SUR 112
Date: Sat 12/11/2016
Duration: 1 hour
№ of Questions: 5 in 1 page(s)
Total Mark: 10

## Question 1:

Each of the following programs has some errors. Locate as many as you can.

| a) | b) |
| :---: | :---: |
| ```#include <iostream>; using namespace std; main { double number, half; cout << "Enter a number to be divided\n" cout << "in half.\n" cin >> number1; half =/ 2; cout << fixedpoint << showpoint << half << endl; return 0;``` | using namespace std; <br> int main () <br> \{ <br> double number1, number2, sum; <br> Cout << "Enter a number: "; <br> Cin << number1; <br> Cout << "Enter another number: "; <br> Cin << number2; <br> number1 + number2 = sum; <br> Cout "The sum is " << sum return 0; |
| \} |  |

## Question 2:

Convert the following if/else if statement into a switch statement:

```
if (choice == 1)
{
    cout << fixed << showpoint << setprecision(2);
}
else if (choice == 2 || choice == 3)
{
    cout << fixed << showpoint << setprecision(4);
}
else if (choice == 4)
{
    cout << fixed << showpoint << setprecision(6);
}
else
e
    cout << fixed << showpoint << setprecision(8);
}
```


## Question 3:

(2 Marks)
Write a program that calculates a car's gas mileage. The program should ask the user to enter the number of gallons of gas the car can hold and the number of miles it can be driven on a full tank. It should then display the number of miles that may be driven per gallon of gas.

## Question 4:

(2 Marks)
Write a program that asks the user to enter two numbers. The program should use the conditional operator to determine which number is the smaller and which is the larger.

## Question 5:

(2 Marks)
Write a program that asks the user for a positive integer value. The program should use a loop to get the sum of all the integers from 1 up to the number entered. For example, if the user enters 50 , the loop will find the sum of $1,2,3,4, \ldots 50$.
Input Validation: Do not accept a negative starting number.
Good Luck
Dr. Islam ElShaarawy

