

North South University
CSE115, Fall 2021
Quiz 1, Full Points 20, Time : 30 minutes (with upload)

Q1) Conversion:

a) $(1110111)_2 = (?)_{10}$

b) $(FE05)_{16} = (?)_8$

Q2) State whether the following identifiers are valid or not. In each case write the reason for your response

3id, __ yes, o_no_o_no, xYshould, int

Q3) Evaluate the following expressions.

a) $39 / ++a + 29 \% b$ where (int a= 11, b=5;)

b) $a - x \parallel b * c \&\& b / a$ where (int a=1,b=2,c=3; double x=1.0)

Q4) Explain , what will be the output if you execute the following.

```
#include <stdio.h>
```

```
int main()
```

```
{    int a = 2;
    int b = 2;
    if (a == 1)
        if (b == 2)
            printf("a was 1 and b was 2\n");
    else printf("a wasn't 1\n");
    return 0;
}
```

Q5) Write a C program to determine if a triangle can be formed or not, given the three sides (take user input). If possible, then determine whether the triangle is equilateral (3 sides equal), isosceles (two side equal) or scalene. Otherwise, print "triangle cannot be formed".

[Hint: You may consider the triangle inequality theorem .]

Q6) Write a C program that will take a decimal integer as input from the user and display the corresponding Roman numeral for that decimal integer. Use switch statement. Write the program for numbers 1-5.

Sample input: 4

Sample output: IV