CSC 150 – Fall 2017 Assignment Prog1 **Name: William DeCurtins**

Due: Thursday 9/7 10:00pm

Submit to D2L: Complete this Word document. Delete the program/problem “Description”. Paste text, not screenclips.

In your cs.dsunix.net account:

* Create two new programs, p1a.c p1b.c
* Write the C programs as requested below for Program 1 and 2

Program 1: Cash register

Description:

Input: Price of a single item

Quantity (how many, int)

Compute: the subtotal for the purchase

the tax on the purchase assuming 6% tax

the total amount due for the purchase

Display: subtotal, tax, and total with messages

Code:

**#include <stdio.h>**

**int main()**

**{**

**int packs;**

**float tax, subtotal, total;**

**printf("How many packs of gum would you like to buy?:");**

**scanf("%d", &packs);**

**subtotal = packs \* 1.75;**

**tax = subtotal \* 0.06;**

**total = subtotal + tax;**

**printf("Subtotal: $%6.2f\n", subtotal);**

**printf("Tax: $%6.2f\n", tax);**

**printf("Total: $%6.2f\n", total);**

**return 0;**

**}**

Sample Output:

**How many packs of gum would you like to buy?:6**

**Subtotal: $ 10.50**

**Tax: $ 0.63**

**Total: $ 11.13**

Program 2: Area & Perimeter

Description:

ask the user for an integer value that represents the radius of a circle. Compute the Area and Perimeter.

[[ 3.14 should be used for pi ]]

also assume that same value represents the length of a side of a square. Compute the Area and Perimeter.

Code:

**#include <stdio.h>**

**int main()**

**{**

**int radius;**

**float areaC, perimC, areaS, perimS;**

**printf("What is the radius of the circle and the length of the square?:");**

**scanf("%d", &radius);**

**areaC = 3.14 \* radius \* radius;**

**perimC = 3.14 \* radius \* 2;**

**areaS = radius \* radius;**

**perimS = radius \* 4;**

**printf("The area of the Circle is %.2f and its perimeter is %.2f\n", areaC, perimC);**

**printf("The area of the square is %.2f and its perimeter is %.2f\n", areaS, perimS);**

**return 0;**

**}**

Sample Output:

**What is the radius of the circle and the length of the square?:3**

**The area of the Circle is 28.26 and its perimeter is 18.84**

**The area of the square is 9.00 and its perimeter is 12.00**