 **Northwestern Polytechnic University**

**CE450L Lab - Embedded Engineering Lab**

**Lab Assignment #3**

**Due day: 10/6/2021**

**Instruction:**

1. **Push the source code to GitHub or answer sheet in word file**
2. **Please follow the code style rule like programs on handout.**
3. **Overdue homework submission could not be accepted.**

**4. Takes academic honesty and integrity seriously (Zero Tolerance of Cheating & Plagiarism)**

**Objectives:**

In this week, student will write c program to solve basic problem by simple statements, such as *"printf"* and *"scanf"* etc.

**The Laboratory Assignments:**

* **Requirements:** write programs for the following questions, and then post them in GitHub including program description in header block comments area.

1. Write program to find sum of two numbers.

*Output:*

*Enter two numbers: 5 6*

*sum=11*

***#include<stdio.h>***

***#include<conio.h>***

***void main()***

***{***

***int a,b,sum;***

***printf("Enter two numbers :");***

***scanf("%d %d",&a,&b);*** ***/\*Enter spacebar key while entering two values,eg :5 (space) 2 and press enter\*/***

***sum = a+b;***

***printf("=>%d+%d=%d",a,b,sum);***

***getch();***

1. Write program to find area and circumference of circle

*Output:*

*enter radius of a circle: 5*

*area of circle=78.000*

*circumference=31.4*

***#include<stdio.h>***

***#include<conio.h>***

***void main()***

***{***

***float a,area,circum;***

***printf("Enter radius of a circle = ");***

***scanf("%f",&a);***

***area = 3.14\*(a\*a);***

***circum=2\*3.14\*a;***

***printf("=>area of circle = %0.3f\n",area);***

***printf("=>circumference of circle = %0.1f",circum);***

***getch();***

***}***

1. Write program to find the simple interest

*Output:*

*enter principle, rate of interest & time to find simple interest: 500 5 2*

*simple interest=50*

*[hint]*

***#include<stdio.h>***

***#include<conio.h>***

***void main()***

***{***

***long int principle, time, rate\_of\_interest, SI;***

***printf("enter principle, rate of interest & time to find simple interest: ");***

***scanf("%ld %ld %ld",&principle, &rate\_of\_interest ,&time); /\*Enter space after each input \*/***

***SI = (principle \* time \* rate\_of\_interest) / 100;***

***printf("Simple Interest = %ld", SI);***

***getch();***

***}***

1. Write program to convert temperature from degree centigrade to Fahrenheit

*Output:*

*enter temp in centigrade: 32*

*temp in Fahrenheit=89.59998*

*[hint]*

***#include<stdio.h>***

***#include<conio.h>***

***void main()***

***{***

***float centigrade,fahren;***

***printf("enter temp in centigrade: ");***

***scanf("%f",&centigrade);***

***fahren = 1.8\* centigrade+32;***

***printf("=>temp in Fahrenheit=%f",fahren);***

***getch();***

***}***

1. Write program to calculate sum of 5 subjects and find percentage

*Output:*

*enter marks of 5 subjects: 60 65 55 60 60*

*enter assumption total number: 500*

*sum=300*

*percentage=60.000*

*[hint]*

***#include<stdio.h>***

***#include<conio.h>***

***void main()***

***{***

***int sum ,a,b,c,d,e;***

***float percentage,total;***

***printf("enter marks of 5 subjects:");***

***scanf("%d %d %d %d %d",&a,&b,&c,&d,&e);***

***printf("enter assumption total number:");***

***scanf("%f",&total);***

***sum=a+b+c+d+e;***

***printf("=>Sum=%d\n",sum);***

***percentage=(sum/total)\*100;***

***printf("=>Percentage= %0.3f",percentage);***

***getch();***

***}***