# Assignment 3

## Write a C Program for the following problem statements

**1. Display multiple variables.**
**Sample Variables :**
**a+ c, x + c,dx + x, a + x, s + b, ax + b, s + c, ax + c, ax + ux**
**Declaration :**
**int a = 125, b = 12345;**
**long ax = 1234567890;**
**short s = 4043;**
**float x = 2.13459;**
**double dx = 1.1415927;**
**char c = 'W';**
**unsigned long ux = 2541567890;**

```
#include<stdio.h>
int main()
{
int a = 125, b = 12345;
long ax = 1234567890;
short s = 4043;
float x = 2.13459;
double dx = 1.1415927;
char c = 'W';
unsigned long ux = 2541567890;

  printf("a + c =  %d\n", a + c);
   printf("x + c = %f\n", x + c);
   printf("dx + x = %f\n", dx + x);
   printf("a + x = %f\n", a + x);
   printf("s + b =  %d\n", s + b);
   printf("ax + b = %d\n", ax + b);
   printf("s + c =  %d\n", s + c);
   printf("ax + c = %d\n", ax + c);
   printf("ax + ux = %u\n", ax + ux);

}
```

**2. Convert specified days into years, weeks and days.**

```
#include<stdio.h>
int main()
{
int days,years,weeks;
printf("enter days:");
scanf("%d",&days);
years=days/365;
```

```
weeks=(days%365)/7;
days=days-((years*365))+(weeks*7));
printf("years:%d",years);
printf("weeks:%d",weeks);
printf(days:%d",days);
return 0;

}
```

**3. Accepts two item's weight (floating points' values ) and number of purchase (floatingpoints' values) and calculate the average value of the items.**

```
#include<stdio.h>
int main()
{
double item1,item2,purchase1,purchase2,total item,average;
printf("item1");
scanf("%f", &item1);
printf("No of  purchase of item1");
scanf("%f",&purchase1);
printf("item2");
scanf("%f", &item2);
printf("No of  purchase of item2");
scanf("%f",&purchase2);
total item=item1*purchase1+item2*purchase2;
average=total item/purchase1+purchase2
return 0;

}
```

**4. Create enumerated data type for 7 days and display their values in integer constants.**

```
#include<stdio.h>
int main()
{
Enum weekdays{
Sunday,Monday,Tuesday,Wednesday,Thursday,Friday,saturday};
printf("%d %d %d %d %d %d %d",
Sunday,Monday,Tuesday,Wednesday,Thursday,Friday,saturday);
return 0;
}
```

**5. Converts Centigrade to Fahrenheit.**

```
#include<stdio.h>
int main()
{
float celsius,fahrenheit;
printf ("enter the temperature vin Celsius:");
```

```
scanf("%f",&celsius);
fahrenheit=((celsius*1.8)+32);
printf("temperature in Fahrenheit=%0.2f",fahrenheit);
return 0;
}
```

### 6. Takes minutes as input, and display the total number of hours and minutes.

```
#include<stdio.h>
int main()
{
int minute,hrmin;
printf("enter minute=");
scanf("%d",&minute);
}
```

### 7. Prints the perimeter of a rectangle to take its height and width as input.

```
#include<stdio.h>
int main()
{
float width,height,perimeter;
printf("enter the height");
scanf("%f",&height);
printf("enter the width");
scanf("%f",&width);
perimeter=2*(width+height);
printf("perimeter of rectangle is: %f",perimeter);
return 0;
}
```

### 8. By using +, /, %=, >=, ! operators.

```
#include<stdio.h>
int main()
{
int a=24,b=8;
printf("sum is %d",(a+b));
printf("sum is %d",(a/b));
printf("sum is %d",(a%=b));
printf("sum is %d",(a>=b));
return 0;

}
```

### 9. By using &, |, >>, ?:, || operators.

```
int a = 5, b = 5, c = 10, result;
result = (a == b) && (c > b);
printf("(a == b) && (c > b) is %d \n", result);
```

```
result = (a == b) || (c < b);
printf("(a == b) || (c < b) is %d \n", result);
```

## 10. Find the Size of int, float, double and char

```
#include<stdio.h>
int itype;
{
float  ftype;
double dtype;
char ctype;
printf(“size of int :%z bytes\n”,sizeof(itype));
printf(“size of float :%z bytes\n”,sizeof(ftype));
printf(“size of double :%z bytes\n”,sizeof(dtype));
printf(“size of char :%z bytes\n”,sizeof(ctype));
return 0;
}
```