Assignment 3

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=101415927;
   char c='W';
   unsigned long ux=2541567890;
   printf("Integer a = %d and b = %d\n",a,b);
   printf("long ax =%ld\n",ax);
   printf("Short s = %hi\n",s);
   printf("Float x = %f\n",x);
   printf("Double dx = %lf\n",dx);
   printf("Char c = %c\n",c);
   printf("Unsigned Long ux = %u",ux);
   getch();
   return 0;  }
```

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

```
#include<stdio.h>
int main()
{
   int days,w=0,y=0;
   printf("Enter number of days : ");
   scanf("%d",&days);
   if(days<365)
   {
      w=days/7;
      days=days%7;
   }
   else
   {
      y=days/365;
      days=days%365;
      if(days>=7)
      {
         w=days/7;
         days=days%7;
      }
   }
   printf("%d year %d weeks and %d days...",y,w,days);
   getch();
   return 0; }
```

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

```
#include<stdio.h>
int main()
{
   float nItem1,nItem2,w1,w2,avg,cost1,cost2;
   printf("Enter weight of item 1 and item 2 : ");
   scanf("%f %f",&w1,&w2);
   printf("Enter no of item 1 and no of item 2 purchased : ");
   scanf("%f %f",&nItem1,&nItem2);
   cost1=w1*nItem1;
   cost2=w2*nItem2;
   avg=(cost1+cost2)/(nItem1+nItem2);
   printf("Avg is %f",avg);
   getch();
   return 0;
}
```

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

```
#include<stdio.h>
int main()
{
   enum days
   {
      sun=1,mon,tue,thu,wed,fri,sat
   };
   printf("Sunday = %d\n",sun);
   printf("Monday = %d\n",mon);
   printf("Tuesday = %d\n",tue);
   printf("Thursday = %d\n",thu);
   printf("Wednesday = %d\n",wed);
   printf("Friday = %d\n",fri);
   printf("Saturday = %d\n",sat);
   getch();
   return 0;
}
```

5. Converts Centigrade to Fahrenheit.

```
#include<stdio.h>
int main()
{
   float C;
   printf("Enter temp. in Centigrade : ");
   scanf("%f",&C);
   printf("Fahrenheit : %f",(C*9/5)+32);
   getch();
   return 0;
}
```

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

```
#include<stdio.h>
int main()
{
   int m=0,h=0;
   printf("Enter minutes : ");
   scanf("%d",&m);
   if(m<60)
      printf("%d hour %d minutes.",h,m);
   else
   {
      h=m/60;
      m=m%60;
      printf("%d hour and %d minutes.",h,m);
   }
   getch();
   return 0; }
```

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

```
#include<stdio.h>
int main()
{
   float h,w;
   printf("Enter height and width of rectangle : ");
   scanf("%f%f",&h,&w);
   printf("Perimeter : %f",2.0*(h+w));
   getch();
   return 0;
}
```

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

```
#include<stdio.h>
int main()
{
   int m,n;
   printf("Enter value of m and n : ");
   scanf("%d%d",&m,&n);
   printf("m + n = %d\n",m+n);
   printf("m / n = %d\n",m/n);
   printf("m %%= n : %d   \" m=m%%n \"\n",m%=n);
   printf("m >= n = %d\n",m>=n);
   printf("!(m>=n) = %d ",!(m>=n));
   getch();
   return 0;
}
```

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

```
#include<stdio.h>
int main()
{
   int m,n;
   printf("Enter value of m and n : ");
   scanf("%d%d",&m,&n);
   printf("m & n = %d\n",m&n);
   printf("m | n = %d\n",m|n);
   printf("m >> n = %d\n",m>>n);
   printf("m > n ? m : n = %d\n",m>n?m:n);
   printf("m || n = %d\n",m||n);
}
```

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

```
#include<stdio.h>
int main()
{
   printf("Size of int : %d\n",sizeof(int));
   printf("Size of float : %d\n",sizeof(float));
   printf("Size of double : %d\n",sizeof(double));
   printf("Size of char : %d\n",sizeof(char));
   getch();
   return 0;  }
```