Q1. Display multiple variables.

PROGRAM:-

```
#include<stdio.h>
int main()
{

        int a=125,b=12345,e,h,i;
        long ax=1234567890,j,k,l,m;
        short s=4043;
        float x=2.13459,f;
        double dx=1.1415927,g;
        char c='W';
        unsigned long ux=2541567890;
        e=a+c;
        printf("a+c=%d",e);
        f=x+c;
        printf("\nx+c=%f",f);
        g=dx+x;
        printf("\ndx+x=%lf",g);
        h=a+x;
        printf("\na+x=%d",h);
        i=s+b;
        printf("\ns+b=%d",i);
        j=ax+b;
        printf("\nax+b=%ld",j);
        k=s+c;
        printf("\ns+c=%ld",k);
```

```
        l=ax+c;
        printf("\nax+c=%ld",l);
        m=ax+ux;
        printf("\nax+ux=%ld",m);

}
```

OUTPUT:-

a+c=212

x+c=89.134590

dx+x=3.276183

a+x=127

s+b=16388

ax+b=1234580235

s+c=4130

ax+c=1234567977

ax+ux=-518831516

Q2. . Convert specified days into years, weeks and days.

PROGRAM:-

```
        #include<stdio.h>
int main()
{
        int num,day,year,week;
        printf("enter number of days:");
```

```
        scanf("%d",&num);
        year=num/365;
        week=(num%365)/7;
        day=(num%365)%7;
        printf("%d is equivalent to %d year,%d week,and %d day",num,year,week,day);
        return 0;
}
```

OUTPUT:-

```
        Enter number of days:400
        400 is equivalent to 1  year,5  week,0  days
```

Q3. . Accepts two item’s weight (floating points' values) and number of purchase (floating points' values) and calculate the average value of the items.

PROGRAM:-

```
#include<stdio.h>
Int main()
{ float wt1,wt2,nwt1,nwt2,avg;
        printf("enter two items weight:");
        scanf("%f%f",&wt1,&wt2);
        printf("enter the number of purchase of first items:");
        scanf("%f",&nwt1);
        printf("enter the number of purchase of second items:");
        scanf("%f",&nwt2);
        avg=((wt1*nwt1)+(wt2*nwt2))/2;
        printf("the average value of the items is %f",avg);
        return 0;
```

OUTPUT:-

```
        Enter two items weight: 20 30
        Enter the number of purchase of first items:5
```

Enter the no. of purchase of second items:7

The average value of the items is 155.000000

Q4. Create enumerated data type for 7 days and display their values in integer constants.

PROGRAM:-

```
#include<stdio.h>
enum day{mon,tue,wed,thur,fri,sat,sun};
int main()
{
printf("the value of enum day:\t%d\t%d\t%d\t%d\t%d\t%d\t%d",mon,tue,wed,thur,fri,sat,sun);
return 0;
}
```

OUTPUT:-

The value of enum day: 0 1 2 3 4 5 6

Q5. Converts Centigrade to Fahrenheit.

PROGRAM:-

```
#include<stdio.h>
int main()
{
    float celcius,fahrenheit;
    printf("enter temperature in celcius:");
    scanf("%f",&celcius);
    fahrenheit=(celcius*9/5)+32;
    printf("temperature in  fahrenheit is %f ",fahrenheit);
    return 0;
}
```

OUTPUT:-

```
Enter temperature in celcius:100
temperature in fahrenheit is 212.000000
```

Q6. Takes minutes as input, and display the total number of hours and minutes.

PROGRAM:-

```
#include<stdio.h>
int main()
{
int nminutes,hours,minutes;
printf("enter n mumber of minutes:");
scanf("%d",&nminutes);
hours=nminutes/60;
minutes=nminutes%60;
printf("%d minutes is equal to %d hours and %d minutes",nminutes,hours,minutes);
return 0;
}
```

OUTPUT:- enter n number of minutes:100

100 minutes is equal to 1hour 40 minutes

Q7. . Prints the perimeter of a rectangle to take its height and width as input.

PROGRAM:-

```
#include <stdio.h>
int main()
{
float h,w,perimeter;
printf("enter the height and weidth:");
scanf("%f%f",&h,&w);
perimeter=2*(h+w);
```

```
        printf("The perimeter of rectangle is %f",perimeter);
        return 0;
}
```

OUTPUT:

Enter the height and weidth: 20 10

The perimeter of a rectangle is 60

Q8. . By using +, /, %=, >=, ! operators.

PROGRAM:-

```
        #include<stdio.h>
int main()
{
        int x,a,b;
        printf("enter the values of a and b:");
        scanf("%d%d",&a,&b);
        printf("a+b=%d\n",a+b);
        printf("a/b=%d\n",a/b);
        printf("a%=b=%d\n",a%=b);
        printf("a>=b=%d\n",a>=b);
        printf("!a=%d\n",!a);
        return 0;
}
```

OUTPUT:-

```
        Enter the values of a and b: 6 8
        a+b=14
        a/b=0
        a=b=6
        a>=b=0
```

!a=0

Q9. . By using &, |, >>, ?:, || operators.

```
#include<stdio.h>
int main()
{
    int a=21,b=15,c=15,num=106,i,result;
    printf("output=%d\n",a&b);
    printf("output=%d\n",a|b);
    for(i=0;i<=2;i++)
    {
        printf("rightshift by %d:%d\n",i,num>>i);

    }
    i=((num==106)?(2):(3));
    printf("the value of i is :%d\n",i);
    result=(b==c)||(c>a);
    printf("((b==c)||(c>a)) is %d \n",result);
    return 0;
}
```

OUTPUT:-

```
Output=5
Output=31
Rightshift by 0:106
Rightshift by 1:53
Rightshift by 2:26
The value of i is:2
((b=c)||(c>a) is 1
```

Q10. . Find the Size of int, float, double and char.

```
#include<stdio.h>
int main()
{
    int i;
    float f;
    double d;
    char c;
    printf("size of int=%zu bytes\n",sizeof(i));
    printf("size of float=%zu bytes\n",sizeof(f));
    printf("size of double=%zu bytes\n",sizeof(d));
    printf("size of character=%zu bytes",sizeof(c));
    return 0;
}
```

OUTPUT:-

```
Size of int=4 bytes
Size of float=4 bytes
Size of double=8 bytes
Size of character=1 bytes
```