**ASSIGNMENT-3**

Name-Asish kumar prusty

**1.** #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=%ld\n",ax+b);

printf("s+c=%hd\n",s+c);

printf("ax+c=%ld\n",ax+c);

printf("ax+ux=%lu\n",ax+ux);

return(0);

}

Output:-

a+c=212

x+c=89.134590

dx+x=3.276183

a+x=127.134590

s+b=16388

ax+b=1234580235

s+c=4130

ax+c=1234567977

ax+ux=3776135780

**ASSIGNMENT-4**

Name-Asish kumar prusty

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

int main()

{

char a;

printf("Enter the character ");

scanf("%c",&a);

if(a=='a'||a=='A'||a=='e'||a=='E'||a=='i'||a=='I'||a=='o'||a=='O'||a=='u'||a=='U')

{

printf("Entered character is %c vowel",a);

}

printf("Entered character is %C constant",a);

return(0);

}

Output:-

Enter the character L

Entered character is L constant

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

#include<math.h>

int main()

{

float a,b,c,root1,root2,discrim,imagi;

printf("Enter the value of a b c ");

scanf("%f %f %f",&a,&b,&c);

discrim=(b\*b)-(4\*a\*c);

if(discrim>0)

{

root1=(-b+sqrt(discrim))/(2\*a);

root2=(-b-sqrt(discrim))/(2\*a);

printf("Two roots are %f %f",root1,root2);

}

else if(discrim==0)

{

root1=root2=-b/(2\*a);

printf("Two roots are equal %f %f",root1,root2);

}

else if(discrim<0)

{

root1=root2=-b/(2\*a);

imagi=sqrt(-discrim)/(2\*a);

printf("two roots are %f %f",root1,root2);

}

return(0);

Output:-

Enter the value of a b c 10

25

5

Two roots are -0.2192 -2.2807

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

int main()

{

int year;

printf("Enter the year ");

scanf("%d",&year);

if(year%4==0)

{

printf("The year %d is leap year",year);

}

else

{

printf("The year is not leap year");

}

return(0);

}

Output:-

Enter the year 2020

The year 2020 is leap year

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

int main()

{

int a,b;

printf("Enter the two numbers ");

scanf("%d %d",&a,&b);

if((100-b)>(100-a))

{

printf("First one is nearest");

}

else

{

if((100-a)>(100-b))

{

printf("Second one is nearest");

}

else

{

printf("Two numbers are equal");

}

}

return(0);

}

Output:-

Enter the two numbers 56

52

First one is nearest

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

int main()

{

int a=5,b=10,c=15;

if((a-b)==(b-c))

{

printf("True");

}

else

{

printf("False");

}

return(0);

}

Output:-

True

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

int main()

{

int mark1,mark2,mark3,avg;

printf("Enter the 3 marks ");

scanf("%d %d %d",&mark1,&mark2,&mark3);

avg=(mark1+mark2+mark3)/3;

if(avg>=90&&avg<=100)

{

printf("The grade is A");

}

else

{

if(avg>=80&&avg<=89)

{

printf("The grade is B");

}

else

{

if(avg>=70&&avg<=79)

{

printf("The grade is C");

}

else

{

if(avg>=60&&avg<=69)

{

printf("The grade is D");

}

else

{

if(avg>=0&&avg<=59)

{

printf("The grade is F");

}

}

}

}

}

return(0);

}

Output:-

Enter the 3 marks 69

54

89

The grade is C

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

#include<math.h>

int main()

{

int month,year;

printf("Enter the number of month ");

scanf("%d",&month);

switch(month)

{

case 1:

printf("Days in a month is 31");

break;

case 2:

printf("Enter the year");

scanf("%d",&year);

if(year%4==0)

{

printf("Days in month is 29");

}

else

{

printf("Days in month is 28");

}

break;

case 3:

printf("Days in month is 31");

break;

case 4:

printf("Days in month is 30");

break;

case 5:

printf("Days in month is 31");

break;

case 6:

printf("Days in month is 30");

break;

case 7:

printf("Days in month is 31");

break;

case 8:

printf("Days in month is 31");

break;

case 9:

printf("Days in month is 30");

break;

case 10:

printf("Days in month is 31");

break;

case 11:

printf("Days in month is 30");

break;

case 12:

printf("Days in month is 31");

break;

default:

printf("Invalid month number");

}

return(0);

}

Output:-

Enter the number of month 5

Days in month is 31

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

int main()

{

int a,b,add,sub,mul,div,value;

printf("Enter the two numbers ");

scanf("%d %d",&a,&b);

printf("Choose the option \n 1:Addition 2:Substraction 3:Multiplication 4:division ");

scanf("%d",&value);

switch(value)

{

case 1:

printf("Addition is %d",a+b);

break;

case 2:

printf("Substraction is %d",a-b);

break;

case 3:

printf("Multiplication is %d",a\*b);

break;

case 4:

printf("Divisssion is %d",a/b);

break;

default:

printf("Invalid option");

}

return(0);

Output:-

Enter the two numbers 5

6

Choose the option

1:Addition 2:Substraction 3:Multiplication 4:division 3

Multiplication is 30

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

#include<math.h>

int main()

{

char grade;

printf("Enter the grade ");

scanf("%c",&grade);

switch(grade)

{

case 'A':

printf("Excellent");

break;

case 'B':

printf("Good");

break;

case 'C':

printf("Average");

break;

case 'D':

printf("Deficient");

break;

case 'E':

printf("Failing");

break;

default:

printf("Invalid grade");

}

return(0);

}

Output:-

Enter the grade D

Deficient