Module 1

Develop a calculator to convert time, distance, area, volume, and temperature from one unit to another:

Input:

```
# include <stdio.h>

int main()

{

    char ch;ch=0;

    int hr,min,s,km,m,cm,l,b,h,a,v,C;

    float F;

    printf("Enter your choice ");

    scanf("%c",&ch);

    switch(ch)

    {case '1':

    printf("Enter time in hours ");

    scanf("%d",&hr);

    min=hr*60;

    printf("Time in minutes is ");

    printf("%d min",min);

    s=min*60;

    printf("\n Time in seconds is ");
```

```
printf("%d sec",s);

break;

case '2':

 printf("\n\n Enter distance in km ");

scanf("%d",&km);

m=km*1000;

 printf("Distance in m is ");

printf("%dm",m);

cm=m*100;

 printf("\n Distance in cm is ");

printf("%dcm",cm);

break;

case '3':

printf("\n\n Enter length ");

scanf("%d",&l);

printf("Enter breadth ");

scanf("%d",&b);

a=l*b;

printf("Area =");

printf("%d",a);

break;

case '4':
```

```
    printf("\n\n Enter length ");
    scanf("%d",&l);
    printf("Enter breadth ");
    scanf("%d",&b);
    printf("\n\n Enter height ");
    scanf("%d",&h);
    v=l*b*h;
    printf("Volume =");
    printf("%d",v);
    break;
    case '5':
    printf("\n\n Enter temperature in C ");
    scanf("%d",&C);
    F=((C*9)/5)+32;
    printf("Temperature in F is");
    printf("%0.2f",F);
    break;
    default:
    printf("Enter a valid choice");
    }
    return 0;
}
```

Output:

Enter your choice 3

Enter length 5
Enter breadth 6
Area =30

Calculate simple and compound interest for various parameters specified by the user :

input:

```
#include <stdio.h>
#include <math.h>

 int main()
 {
     char ch;ch=0;
     float p,t,r,SI,CI;
     printf("enter ur choice");
     scanf("%c",&ch);

     printf("enter p");
     scanf("%f",&p);
     printf("enter t");
     scanf("%f",&t);
     printf("enter r");
     scanf("%f",&r);
     switch (ch)

    {
    case '1':
    SI=(p*t*r)/100;
  printf("%0.2f",SI);
  break;
  case '2':
  CI=p*(pow((1+r/100),t));
  printf("%0.2f",CI);
  break;
  default:
  printf("choose correct choice");
```

```
 }

    return 0;
}
```

Output:

Enter your choice 1
Enter time in hours 7
Time in minutes is 420 min
Time in seconds is 25200 sec

calculate total average and percentage of five subjects:

Input:

```
#include <stdio.h>


int main() {
   char ch;ch=0;
    int sub1,sub2,sub3,sub4,sub5,total;
    float avg,percentage;
    printf("Enter your choice ");
    scanf("%c",&ch);
    printf("Enter value of sub1 ");
    scanf("%d",&sub1);
    printf("Enter value of sub2 ");
    scanf("%d",&sub2);
    printf("Enter value of sub3 ");
    scanf("%d",&sub3);
    printf("Enter value of sub4 ");
    scanf("%d",&sub4);
    printf("Enter value of sub5");
    scanf("%d",&sub5);
       switch(ch)
    {
    case '1':
```

```
    total=sub1+sub2+sub3+sub4+sub5;
    printf("%d",total);
    break;
    case '2':
    avg=(sub1+sub2+sub3+sub4+sub5)/5;
    printf("%0.2f",avg);
    break;
    case '3':
    percentage=((sub1+sub2+sub3+sub4+sub5)/5)*100;
    printf("%0.2f",percentage);
   break;
   default:
   printf("enter the correct choice");
    }
    return 0;
}
```

Output:

Enter your choice 3
Enter value of sub1 4
Enter value of sub2 2
Enter value of sub3 3
Enter value of sub4 6
Enter value of sub54
300.00

Calculate net salary of employee given basic,da,hra,pf and lic

input:

```
#include<stdio.h>
int main()
{
    char ch;ch=0;
int wages;
double days,basic,HRA,DA,PF,netsalary;
printf("enter your choice:");
scanf("%c",&ch);
printf("Enter daily wages and number of days worked:");
scanf("%d %lf",&wages,&days);
```

```
switch(ch)
{
   case '1':
basic=wages*days;
printf("%lf",basic);
break;
case '2':
HRA=wages*days*0.1;
printf("%lf",HRA);
break;
case '3':
DA=wages*days*0.05;
printf("%lf",DA);
break;
case '4':
PF=wages*days*0.12;
printf("%lf",PF);
break;
case '5':
netsalary=wages*days+wages*days*0.1+wages*days*0.05-wages*days*0.12;
printf("%lf,netsalary");
break;
default:
printf("enter correct choice");



}



    return 0;
}
```

Output:

Enter your choice 2
Enter value of sub1 1
Enter value of sub2 1
Enter value of sub3 1
Enter value of sub4 1
Enter value of sub51
1.00

Swap two numbers

Input:

```
#include <stdio.h>
int main()
{
    char ch;ch=0;
int a,b,c;
printf("enter your choice");
scanf("%c",&ch);
printf("enter the value f a");
scanf("%d",&a);
printf("enter the value f b");
scanf("%d",&b);
printf("enter the value f c");
scanf("%d",&c);

switch(ch)
{
    case '1':
a=b;
printf("%d",a);
break;
case '2':
b=c;
printf("%d",b);
break;
case '3':
c=a;
printf("%d",c);
break;
default:
printf("choose your choice again");
}
return 0;

}
```

Output:

find angles of triangle if two angles are given:

Input:

```
#include <stdio.h>
int main()
{
    char ch;ch=0;
int a,b,c;
printf("enter your choice");
scanf("%c",&ch);

switch(ch)
{
    case '1':
    printf("enter the value of a");
scanf("%d",&a);
printf("enter the value of b");
scanf("%d",&b);
c=180-(a+b);
printf("%d",c);
break;
case '2':
printf("enter the value of b");
scanf("%d",&b);
printf("enter the value of c");
scanf("%d",&c);
a=180-(b+c);
printf("%d",a);
break;
case '3':
printf("enter the value f a");
scanf("%d",&a);
printf("enter the value f c");
scanf("%d",&c);
b=180-(a+c);
printf("%d",b);
break;
default:
printf("choose your choice again");
}
return 0;

}
```

Output: