1.Write a C Program to demonstrate all the operators.

```
#include< stdio .h>
#include< conio .h >
void main ()
{
 int a=5,b=10,c=0,d;
float p , q , r;
p=1;
q=3;
clrscr();
d= a + b *c;
printf("\n %d+%d*%d=%d",a,b,c,d);
r=p/q;
printf("\n%f/%f=%f",p,q,r);
d=a<b;
printf("\n%d<%d=%d",a,b,d);
d=(a<b)&&(b<c);
printf("\n(%d<%d)&&(%d<%d)=%d",a,b,b,c,d);
a++;
printf("\nafter a++,a=%d",a);
d=a++;
printf("\nafter d=a++,d=%d,a=%d",d,a);
getch();
}
```

2. Write a C Program for electricity bill tacking different Categories of users, different slabs in each category.

```
 #include<stdio.h>
#include<conio.h>
#include<math.h>
int mno;
void main()
{
int n,cr,pr;
char utype;
float bill=0.0;
clrscr();
printf("electricity bill collection:\n");
printf("enter meter number");
scanf("%d",&mno);
printf("enter current reading:\n");
scanf("%d",&cr);
printf("enter previous reading:\n");
scanf("%d",&pr);
n=cr-pr;
printf("\n\tmenu");
printf("\nenter D for domestic users:\n");
printf("\nenter N for non_domestic users:\n");
printf("\n\tenter the type of user:\n");
scanf("%s",&utype);
if(utype=='D'||utype=='d')
{
if(n>=0 && n<=200)
{
bill=n*0.50;
```

```
}
else if(n>200 && n<=400)
{
bill=100+n*0.65;
}
else if(n>400 && n<=600)
{
bill=230+n*0.80;
}
else if(n>600)
{
bill=390+n*1.00;
}
else
printf ("\n invalid number of units");
}
else if (utype=='N'||utype=='n')
{
if(n>=0 && n<=100)
{
bill=n*0.50;
}
else if(n>100 && n<=200)
{
bill=50+n*0.60;
}
else if(n>200 && n<=300)
{
bill=100+n*0.70;
```

```
}
else if(n>300)
{
bill=200+n*1.0;
}
else
printf("invalid number of units\n");
}
else
{
printf("invalid user type\n");
}
if(bill>0)
{
printf("meter number is %d",mno);
printf("\nthe number of units consumed %d\n",n);
printf("\nbill amount for %d units is %f\n",n,bill);
}
getch();
}
```

3. Write a C Program to find check whether the given number is Prime or not.

```
#include<stdio.h>
#include<conio.h>
void main()
{
int i,n,flag=0;
clrscr();
printf("enter a number to check:\n");
scanf("%d",&n);
for(i=2;i<n;i++)
{
if(n%i==0)
{
flag=1;
break;
}
}
if(flag==0)
printf("number is prime\n");
else
printf("number is not prime\n");
getch();
}
```

4. Write a C Program to check the correctness of the date and compare two dates.

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

```
int ndays(int m,int y)
{
switch(m)
{
case 1:
case 3:
case 5:
case 7:
case 8:
case 10:
case 12:
return(31);
case 4:
case 6:
case 9:
case 11:
return(30);
case 2:
if((y%4) == 0)
{
return(29);
}
else
return(28);
}
return 0;
}
int main()
{
int d1,m1,y1,d2,m2,y2;
clrscr();
printf("\nenter the current date:\n");
scanf("%d/%d/%d",&d1,&m1,&y1);
printf("the dates are\n 1st date %d/%d/%d",d1,m1,y1);
if(m1 >= 1 && m1 <= 12)
{
if(d1 >= 1 && d1 <= ndays(m1,y1))
{
printf("\ndate is valid\n");
}
else
printf("\ndate is not valid\n");
}
else
{
printf("\nentered date is not valid\n");
}
printf("\nenter another date:\n");
scanf("\n%d/%d/%d",&d2,&m2,&y2);
if(d1 == d2 && m1 == m2 && y1 == y2)
{
```

```
printf("\n%d/%d/%d and %d%/d/%d are same",d1,m1,y1,d2,m2,y2);
}
else if((d1 < d2 && m1 < m2 && y1 == y2) || (y1 == y2 && m1 < m2) || (y1 < y2))
{
printf("\n%d/%d/%d this date is earlier than %d/%d/%d",d1,m1,y1,d2,m2,y2);
}
else
{
printf("\n%d/%d/%d is later than this date %d/%d/%d",d1,m1,y1,d2,m2,y2);
}
return 0;
}
```