ASSIGNMENT - 06

Q1. Calculate the sum of number(10 numbers max)& if the user enters a negative number , the loop terminates.

```
#include <stdio.h>
int main() {
 int i,n,sum=0;
for(i=0;i<=10;i++)   {
printf("enter the number :");
scanf("%d", &n);
if(n<0)
break;
sum=sum+n;   }
printf("sum =%d", sum);
return 0;
}
```

OUTPUT :

```
enter the number :1
enter the number :2
enter the number :3
enter the number :4
enter the number :5
enter the number :-6
sum =15
```

Q2. Calculate the sum of numbers(10 numbers max)& if the user enters a negative number, its not added to the result.

```
#include <stdio.h>
int main() {
int i,n,sum=0;
for(i=0;i<=10;i++)   {
printf("enter the number :");
scanf("%d", &n);
if(n<0)
continue;
sum=sum+n;
}
printf("sum =%d", sum);
return 0;
}
```

OUTPUT :

```
enter the number :1
enter the number :2
enter the number :3
enter the number :4
enter the number :-5
enter the number :5
enter the number :6
enter the number :7
enter the number :8
enter the number :9
enter the number :10
sum =55
```

Q3. Take input from the user until he/she enters zero.

```
#include <stdio.h>
int main() {
int n;
while (1)    {
printf("enter the number :");
scanf("%d", &n);
if(n==0)
break;    }
printf("come out of  loop=%d ", n);
return 0;
}
```

OUTPUT :

```
enter the number :8
enter the number :5
enter the number :0
come out of  loop=0
```

Q4. Check whether the given number is prime or not.

```
#include <stdio.h>
int main() {
int n, i, flag = 0;
printf("Enter a number: ");
scanf("%d", &n);
for (i = 2; i <= n / 2; ++i) {
if (n % i == 0) {
flag = 1;
break;        }    }
if (n == 1) {
printf("1 is neither prime nor composite.");     }
else {
if (flag == 0)
printf("%d is a prime number.", n);
else
printf("%d is not a prime number.", n);     }
 return 0;
}
```

OUTPUT :

```
Enter a number: 2
2 is a prime number.

Enter a number: 45
45 is not a prime number.
```

Q5. Print sum of odd numbers between 0 to 10.

```
#include <stdio.h>
int main() {
int i,sum=0;
printf(" the odd numbers are :");
for(i=0;i<=10;i++)        {
if(i%2!=0)       {
printf("%d\n ", i);
continue;
sum=sum+i;              }   }
printf("sum of odd numbers  =%d", sum);
 return 0;
}
```

```
the odd numbers are :1
 3
 5
 7
 9
 sum of odd numbers  =25
```

O6. Check whether the given number is prime or not.(using continue)

```
#include <stdio.h>
int main() {
int n,i,temp=0;
printf("Enter a positive integer :");
scanf("%d", &n);   for(i=2;i<n/2;++i)    {
 if(n%i==0) {
temp=1;
continue;       }   }
 if(n==1) {
printf("1 is neither prime  nor composite .");    }
else {
if(temp==0)
printf("%d is a prime number.", n);
 else
 printf("%d is not a prime .", n);   }
 return 0;
}
```

OUTPUT :

```
Enter a positive integer :11
is a prime number.

Enter a positive integer :6
6 is not a prime .
```

Q7. Print all even number from 1 to 100.

```
#include <stdio.h>
int main() {
int i,sum=0;
printf("The even numbers are :");
for(i=1;i<=100;i++)       {
if(i%2==0)       {
printf("%d\t", i);
continue;
}   }
return 0;
}
```

OUTPUT :

```
The even numbers are :2         4          6
                8          10         12
                14         16         18
                20         22         24
                26         28         30
                32         34         36
                38         40         42
                44         46         48
                50         52         54
                56         58         60
                62         64         66
                68         70         72
                74         76         78
                80         82         84
                86         88         90
                92         94         96
                98         100
```

Q8. Print number from 1 to 10 using g oto statement.

```
#include <stdio.h>
int main() {
int i=1;
printf("The numbers between 1 to 10 are :");
label:
printf("%d\t", i);
i++;
if(i<=10)
goto label;
return 0;
}
```

OUTPUT :

```
The numbers between 1 to 10 are :1       2       3       4       5       6       7       8
        9       10
```

Q9. Program to calculate the sum and average of positive numbers , if the user enter a negative number, the sum and average are displayed.

```
#include <stdio.h>
int main() {
 int i;
double num ,average , sum=0;
for(i=1;i<=10;i++)  {
printf(" %d enter a number :", i);
scanf("%lf", &num);
if(num<0)
goto jump;
sum+=num;  }
jump:
average =sum/(i-1);
 printf("sum =%f\n", sum);
printf("average =%f", average);
return 0;
}
```

OUTPUT :

```
1 enter a number :2
 2 enter a number :3
 3 enter a number :4
 4 enter a number :5
 5 enter a number :-8
   sum =14.000000
average =3.500000
```

Q10. Check if a number is even or not.

```
#include <stdio.h>
int main() {
int n;
printf(" enter a number :");
scanf("%d", &n);
label:
 if(n%2==0)
goto even;
else
goto noteven;
even :
printf("%d is even\n", n);
exit(0);
noteven :
printf("%d is not even\n", n);
return 0;
}
```

OUTPUT :

```
enter a number :95
95 is not even
enter a number :66
66 is even
```