Day-3:-

9. Reverse of a number

```
#include <stdio.h>
int main()
{
int num, reverse=0, remainder;
Printf ("Enter an integer: ");
Scanf ("%d", &num);
while (num !=0)
{
remainder = num %.10;
reverse = reverse * 10 + remainder;
num /=10;
}
Printf ("Reversed number : %.d\n", reverse);
return 0;
}
```

10) Palindrome number

```
#include <stdio.h>
int main()
{
int number, original number, reversed number=0,
        remainder;
printf ("Enter an integer: ");
scanf ("%.d", &number);
original number =number;
while (number !=0)
{
```

```
remainder = number % 10;
reversedNumber = reversedNumber * 10 + remainder;
number /= 10;
}
if (originalNumber == reversedNumber)
{
printf("%d is a palindrome number.\n",
originalNumber);
}
else
{
printf("%d is not a palindrome number.\n",
originalNumber);
}
return 0;
}
```

11) Armstrong number in a given range.

```
#include <stdio.h>
#include <math.h>
int isArmstrong(int num)
{
int originalNum, remainder, n=0;
double result = 0.0;
originalNum = num;
while (originalNum != 0) {
originalNum /= 10;
++n;
}
```

```
originalNum = num;
while (originalNum != 0) {
remainder = originalNum % 10;
  result += pow (remainder, n);
   originalNum /= 10;
}
if ((int) result == num)
   return 1;
else
   return 0;
}
int main() {
 in lowerLimit, upperLimit, i;
printf ("Enter the lower Limit of the range: ");
 scanf ("%d", &lowerLimit);
printf ("Enter the upper limit of the range: ");
 scanf ("%d", &upperLimit);
printf ("Armstrong numbers between %d and %d are:",
                        LowerLimit, upper Limit);
for (i = lowerLimit; i <= upper Limit ; ++i) {
   if (is Armstrong(i)) {
      printf ("%d ", i);
   }
}
printf ("\n");
return 0;
}
```

12) Fibonacci series upto nth term

```
#include <stdio.h>
int main()
{
int i,n;
int t1=0, t2=1;
int nextTerm = t1 + t2;
printf ("Enter the number of terms:");
scanf ("%d", &n);
printf ("Fibonacci series : %d, %d,", t1, t2);
for (i=3; i<=n; ++i) {
printf ("%d", nextTerm);
  t1 = t2;
  t2 = nextTerm;
 nextTerm = t1 + t2;
 }
return 0;
}
```

Output:

Enter the number of terms : 10

Fibonacci series = 0, 1, 1, 2, 3, 5, 8, 13, 21, 34,