**B.Tech(CSE) III Semester- (C++ Assignment-1)**

Program 1-**Write the programs to find the sum of the following series:**

**(a) S = a + a2  + a3  + ....... + a n**

**(b) S = (a+1) + (a+2) + (a+3) + ....... + (a+n)**

**(c) S = (a/2) + (a/5) + (a/8) + (a/11) + ....... + (a/20)**

**(d) S = (1/a) + (2/a2 ) + (3/a3 ) + ....... to n**

Program 2-**Write programs to find the sum of the following series:**

**(a) S = 1 + (3/2!) + (5/3!) + (7/4!) + ....... to n**

**(b) (b) S = a + (a/2!) + (a/3!) + (a/4!) + ....... + (a/n!)**

**(c) S = a - (a/2!) + (a/3!) - (a/4!) + ....... to n**

**(d) S = (a/2!) - (a/3!) + (a/4!) - (a/5!) + ....... + (a/10!)**

Program 3- **Write the programs to display the following patterns:**

(a)

1  
3 1  
5 3 1  
7 5 3 1  
9 7 5 3 1

(b)

1   2   3   4   5  
6   7   8   9  
10 11 12  
13 14  
15

(c)

15 14 13 12 11  
10 9 8 7  
6 5 4  
3 2  
1

(f)

1 2 3 4 5  
2 2 3 4 5  
3 3 3 4 5  
4 4 4 4 5  
5 5 5 5 5

Program 4- **Write the programs to display the following patterns:**

(a)

A  
 A B A  
 A B C B A  
 A B C D C B A  
 A B C D E D C B A

(b)

A  
 B B B   
 C C C C C  
 D D D D D D D  
 E E E E E E E E E   
 A A A A A A A   
 B B B B B  
 C C C  
 D