

## PDS Lab Section 1

### Bonus question [10 marks]

The following diagram is called the Pascal's triangle, where the  $k$ -th entry (from left) on  $n$ -th line is:

$$\binom{n}{k} = \binom{n-1}{k-1} + \binom{n-1}{k}$$

Here  $n = 0, 1, 2, \dots$  and  $k = 0, \dots, n$ .

This is a formatted printing of the Pascal's triangle:

```

      1
     1 1
    1 2 1
   1 3 3 1
  1 4 6 4 1
 1 5 10 10 5 1
1 6 15 20 15 6 1
1 7 21 35 35 21 7 1
```

In the above example  $n=0$ -th line has the single entry : 1.

Write a C – program to print the **formatted** Pascal's triangle for a given input  $n$  rows.

**Hint:** pre-calculate the number of blank spaces before each line.