## Assignment-III

Generate the following patterns for any non-zero positive integer n. You may use a for loop, a while loop, or a combination of several loops. You can also create whatever variables you can.

Q1. Enter a non-zero positive integer: 5 (See Sample Code)

```
1
      2
          3
              4
                  5
 6
      7
                 10
          8
              9
 11
    12 13 14 15
 16
    17 18 19
 21 22 23 24 25
                             Q3.
                                                                                      Q5.
Q2.
                                                         Q4.
                            0
                               0
                                        0
                                             0
                                                     5
                                                                                    22
 0
     1
              3
                                    0
                                                         4
                                                              3
                                                                  2
                                                                       1
                                                                               21
                                                                                        23
                                                                                            24
                                                                                                 25
                  4
         2
              3
                                             1
                                                              8
                                                                  7
                                                                       6
 0
     1
                            1
                               1
                                    1
                                        1
                                                    10
                                                         9
                                                                               16
                                                                                   17
                                                                                        18
                                                                                            19
                                                                                                 20
                  4
 0
     1
         2
             3
                  4
                            2
                               2
                                    2
                                        2
                                             2
                                                    15
                                                         14
                                                              13
                                                                  12
                                                                      11
                                                                               11
                                                                                    12
                                                                                        13
                                                                                            14
                                                                                                 15
         2
              3
                  4
                            3
                               3
                                    3
                                        3
                                             3
                                                                                   7
 0
     1
                                                    20
                                                         19
                                                              18
                                                                  17
                                                                       16
                                                                                6
                                                                                        8
                                                                                            9
                                                                                                 10
 0
     1
         2
              3
                  4
                               4
                                    4
                                             4
                                                    25
                                                         24
                                                             23
                                                                  22
                                                                      21
                                                                                    2
                                                                                        3
                                                                                            4
                                                                                1
                                                                                                 5
Q6.
                               Q7.
                                                           Q8.
                                                                                       Q9.
                                                            2
 25
     24
          23
              22
                   21
                                     11
                                         16
                                              21
                                                        1
                                                                 3
                                                                     4
                                                                          5
                                                                                     10
                                                                                         11
                                                                                              20
                                                                                                  21
                                  6
                                                                                  1
                                                            9
                                                                 8
                                                                          6
 20
     19
          18
              17
                   16
                             2
                                  7
                                     12
                                         17
                                              22
                                                      10
                                                                     7
                                                                                  2
                                                                                       9
                                                                                         12
                                                                                              19
                                                                                                  22
     14
 15
          13
               12
                   11
                             3
                                  8
                                     13
                                         18
                                              23
                                                      11
                                                           12
                                                               13
                                                                    14
                                                                        15
                                                                                  3
                                                                                       8
                                                                                         13
                                                                                              18
                                                                                                  23
 10
       9
           8
                7
                                  9
                                     14
                                         19
                                              24
                                                      20
                                                           19
                                                               18
                                                                    17
                                                                                  4
                                                                                       7
                                                                                         14
                                                                                              17
                                                                                                  24
                    6
                                                                        16
           3
  5
       4
                2
                    1
                             5 10
                                    15
                                         20
                                             25
                                                      21
                                                           22
                                                               23
                                                                    24
                                                                        25
                                                                                  5
                                                                                       6 15
                                                                                              16 25
Q10.
                              Q11.
                                                           Q12.
      2
           3
                              1 2
                    5
                                      3
                                              5
                                                       1
                                                          3
                                                               6
                                                                  10
                                                                      15
               4
 16
      6
          7
               8
                    9
                                      7
                                         8
                                              9
                                                       2
                                                          5
                                                               9
                                                                  14
                                                                       19
                             10 6
 17
      18
          10
               11
                    12
                             14 15
                                      11 12
                                              13
                                                       4
                                                          8
                                                              13
                                                                  18
                                                                       22
 19
      20
          21
               13
                    14
                             18 19
                                      20 16
                                              17
                                                      7
                                                          12
                                                              17
                                                                  21
                                                                       24
 22
               25
                                                              20
      23
          24
                   15
                             22 23
                                      24 25
                                              21
                                                          16
                                                                  23
                                                                       25
                                                      11
```

| Q13. |   |   |   |   | Ç  | Q14. |    |    |   |
|------|---|---|---|---|----|------|----|----|---|
| 3    | 3 | 3 | 3 | 3 | 1  | 2    | 3  | 4  | 5 |
| 3    | 2 | 2 | 2 | 3 | 16 | 17   | 18 | 19 | 6 |
| 3    | 2 | 1 | 2 | 3 | 15 | 24   | 25 | 20 | 7 |
| 3    | 2 | 2 | 2 | 3 | 14 | 23   | 22 | 21 | 8 |
| 3    | 3 | 3 | 3 | 3 | 13 | 12   | 11 | 10 | 9 |