

## Level 2 Programming

Duration : 3 hrs

- All programs carry equal marks.
- All programs can be coded using java / c / c++.
- Unless specified, all programs should have a generic logic and should work for any given input other than the one specified in the examples.

1) Print a given  $n \times m$  array in the below format. If the starting position is in the top row, then the direction should be downward from that position and the pattern should continue. If the starting position is at the bottom row, then the direction should be upward from that position and the pattern should continue.

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

**Input :** Starting Position : {4,0}

**Output :** 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25.

**Input :** Starting Position : {4,1}

**Output :** 10,9,8,7,6,15,14,13,12,11,20,19,18,17,16,25,24,23,22,21,1,2,3,4,5

**Input :** Starting Position : {0,3}

**Output:** 16,17,18,19,20,21,22,23,24,25,5,4,3,2,1,10,9,8,7,6,15,14,13,12,11

2). Find out the biggest possible palindrome using the characters of a given set of words. If multiple palindromes of the same size could be formed, then it is enough if one of them is printed.

**Input :** This is a Sample text for testing.

**Output :** Max possible palindrome : 15 characters

**Ex :** ttissaepeassitt