MATRIX-

1. Print Matrix in Spiral Order
2. Create Spiral Matrix from given array
3. Shift all matrix elements by 1 in Spiral Order
4. Find Shortest path from source to destination in a matrix that satisfies given constraints
5. Change all elements of row i and column j in a matrix to 0 if cell (i, j) has value 0
6. Print diagonal elements of the matrix having positive slope
7. Find all paths from first cell to last cell of a matrix
8. Replace all occurrences of 0 that are not surrounded by 1 in a binary matrix
9. In-place rotate the matrix by 90 degrees in clock-wise direction
10. Count negative elements present in sorted matrix in linear time
11. Report all occurrences of an element in row wise and column wise sorted matrix in linear time
12. Calculate sum of all elements in a sub-matrix in constant time
13. Find maximum sum K x K sub-matrix in a given M x N matrix
14. Find maximum sum submatrix present in a given matrix
15. Find probability that a person is alive after taking N steps on the island
16. Count the number of islands
17. Flood fill Algorithm
18. Find shortest safe route in a field with sensors present
19. Find all occurrences of given string in a character matrix
20. Shortest path in a Maze | Lee algorithm
21. Check if given matrix is Toeplitz matrix or not
22. In-place rotate the matrix by 180 degrees
23. Fill Binary Matrix with Alternating Rectangles of 0 and 1
24. Find all common elements present in every row of given matrix
25. Construct a Binary Tree from Ancestor Matrix
26. Find common elements present in all rows of a matrix

27. Travelling Salesman Problem using Branch and Bound
28. Collect maximum points in a matrix by satisfying given constraints
29. Count number of paths in a matrix with given cost to reach destination cell
30. Find longest sequence formed by adjacent numbers in the matrix
31. Find the minimum cost to reach last cell of the matrix from its first cell
32. Matrix Chain Multiplication
33. Find size of largest square sub-matrix of 1's present in given binary matrix
34. Chess Knight Problem – Find Shortest path from source to destination
35. Find Duplicate rows in a binary matrix
36. Print all possible solutions to N Queens problem
37. Print all Possible Knight's Tours in a chessboard
38. Find Shortest Path in Maze
39. Find Longest Possible Route in a Matrix
40. Calculate size of the largest plus of 1's in binary matrix
41. Find the maximum value of M[c][d] – M[a][b] over all choices of indexes
42. Find shortest distance of every cell from landmine in a Maze Find shortest route in a device to construct the given string