

## **Data Structures & Algorithms (DSA) with PYTHON**

### **Syllabus:**

- 01) Introduction to DSA
- 02) Sample algorithms and implementation
- 03) Array data structure
- 04) One-d array programs
- 05) Two-d or matrix programs
- 06) CRUD operations on arrays
- 07) String data structure
- 08) String handling programs
- 09) CRUD operation on string
- 10) Recursion and its application
- 11) Sorting and searching
- 12) List data structure (SLL,DLL,CSLL,CDLL)
- 13) Stack data structure
- 14) Queue data structure
- 15) Hashtable data structure
- 16) Tree data structure
- 17) Priority queues and heap data structure
- 18) Graph data structure
- 19) Divide and conquer algs
- 20) Dynamic programming

- 21) Back tracking
- 22) Greedy method
- 23) Complexities
- 24) Bitmanipulations