

Pune Vidyarthi Griha's
COLLEGE OF ENGINEERING, NASHIK – 4
COMPUTER ENGINEERING DEPARTMENT

Subject : DSA

ASSIGNMENT NO – 01

Unit - I

1. Define and explain the following terms : (i) **Data** (ii) **Data structure** (iii) **Flowchart**.
2. Define **algorithms** and explain its characteristics.
3. Explain the **divide and conquer strategy** with suitable example. Comment on its time complexity.
4. Explain the **Asymptotic notation** Big O, Omega and Theta with suitable example.
5. Explain **static and dynamic data structures** with examples.
6. What is **recurrence relation** ? Explain with example.
7. Differentiate between **linear and non-linear data structure** with example.
8. Explain the **Greedy strategy** with suitable example. Comment on its time complexity.
9. Define and explain **ADT(Abstract Data Type)**.
10. Define and explain the following terms :
 - (a) Linear data structure
 - (b) Non-linear data structure
 - (c) Time complexity
 - (d) Space complexity

***** **Best of Luck** *****