UNIT-I

INTRODUCTION TO ALGORITHMS

1) Define Algorithm and describe the characteristics of algorithm with example.**(BTL – I,VI)**

2) Discuss the pseudo code conventions for expressing algorithm. **(BTL – VI)**

3) Distinguish between Algorithm and Pseudo code**. (BTL – IV)**

4) Distinguish between Algorithm and Program. **(BTL – IV)**

5) Explain the performance analysis with example

(Or) **(BTL – II, V)**

Explain about Space Complexity and Time complexity

6) What is space complexity? Illustrate with an example for fixed and variable part in space complexity. **(BTL – I,II)**

7) What is an asymptotic notation? Explain different types of Asymptotic notations with examples. **(BTL – I,II,V**)

(Or)

Explain Big O, Omega and Theta notations? Explain what are they used for? **(BTL – II, V)**

8) Explain the method of determining the complexity of procedure by step count approach. Illustrate with an example. **(BTL – II,V)**

9) Give the algorithm for matrix additions and determine the time complexity of this algorithm by frequency-count method. **(BTL – V)**

10) Explain about analysis Framework briefly. **(BTL – II,V)**

11) In what way amortized analysis is used for performance analysis of Algorithms? Explain. **(BTL – I, II, V)**