

ST. FRANCIS INSTITUTE OF TECHNOLOGY

Mount Painsur, S.V.P. Road, Borivali (West), Mumbai - 400103

Computer Engineering Department

PORTION FOR IAT 1

Academic Year: 2023-24

Class/Branch: SE-A & B/CMPN

Subject: CSC402: Analysis of Algorithms **Semester:** IV

Date: 13/02/2024

Module 1: Introduction (2 marks questions only)

Performance analysis, space, and time complexity Growth of function, Big-Oh, Omega Theta notation Mathematical background for algorithm analysis.

Analysis of selection sort, insertion sort.

Module 2: Divide and Conquer (2 and 5 marks questions)

General method, Merge sort, Quick sort, Finding minimum and maximum algorithms and their Analysis, Binary search and its analysis.

Module 3: Greedy Method (2 and 5 marks questions)

General Method, Single source shortest path: Dijkstra Algorithm,

Minimum cost spanning trees: Kruskal and Prim's algorithms, Job sequencing with deadlines

Ms. Bidisha Roy

Subject In-Charge