

ST. FRANCIS INSTITUTE OF TECHNOLOGY

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

Computer Engineering Department

PORTION FOR IAT 2

Academic Year: 2022-23

Class/Branch: SE-A & B/CMPN

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

Date: 31/03/2023

Module 4: Dynamic Programming Approach (2 and 5 marks questions)

General Method, Multistage graphs, Single source shortest path: Bellman Ford Algorithm, All pairs shortest path: Floyd Warshall Algorithm, 0/1 knapsack Problem, Travelling Salesperson problem, Longest common subsequence

Module 5: Backtracking and Branch and Bound (2 and 5 marks questions)

General Method, Backtracking: N-queen problem, Sum of subsets, Graph colouring

Module 6: String Matching Algorithms (2 marks questions only)

The Naïve string-matching algorithm, The Rabin Karp algorithm, The Knuth-Morris-Pratt algorithm

Ms. Bidisha Roy

Subject In-Charge