

Faculty of Science

**B.Sc (Computer Science) II-Year, CBCS-IV Semester Regular/Backlog
Examinations –January, 2021****PAPER: DESIGN AND ANALYSIS OF ALGORITHMS**

Time: 2 Hours

Max Marks: 80

I. Answer any **Four** of the following questions

(4x20=80 Marks)

1. Define greedy technique? Explain Huffman codes?
2. Explain Strassen's algorithm for matrix multiplication?
3. Explain in detail quick sorting method. Provide a complete analysis of quick sort with example
4. Explain optimal binary search tree algorithm with example and analyze its efficiency?
5. Explain string matching with Finite Automata?
6. Explain about NP-hard scheduling algorithm with suitable example?
7. Explain single source shortest path with Bellman-Ford Algorithm?
8. Distinguish between BFS and DFS?
