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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

M.Tech I Year II Semester Regular Examinations October 2020

ADVANCED ALGORITHMS

(Computer Science & Engineering)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1 What is Topological Sorting? Explain Topological Sorting with Algorithm & Example. 12M

OR

2 Compare and Illustrate different “Minimum Cost Spanning Tree” finding algorithms. 12M

UNIT-II

3 What do you mean Matroid? Discuss any two Greedy Algorithm Techniques. 12M

OR

4 Write about following 6M
 a Warshall’s Technique 6M
 b Graph Coloring Problem

UNIT-III

5 Illustrate Strassen’s Algorithm with an Example. 12M

OR

6 Differentiate following techniques 6M
 a Maximum Flows and Minimum Cuts in a Graph. 6M
 b Max Flow Equals min cut

UNIT-IV

7 Write Algorithms for following 6M
 a Travelling Sales Person Problem. 6M
 b Towers of Hanoi.

OR

8 Define Finite Automata? Discuss Chinese Remaindering and Interpolation of Polynomials 12M

UNIT-V

9 Illustrate Geometry of the feasibility Region and Simplex Algorithm. 12M

OR

10 Write in detail about Interior point Method. 12M

*** END ***