

Code No.: CS8201PC

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
I-M.TECH-II-Semester End Examinations (Regular) - September - 2021
ADVANCED ALGORITHMS
(CSE)

[Time: 3 Hours]

[Max. Marks: 70]

1. Answer Any **FIVE** Questions. Each Question Carries 14 Marks
2. All Questions Carry Equal Marks
3. Illustrate your answers with NEAT sketches wherever necessary.

5X14=70

1. a) Discuss Shortest Path by BFS with Example? [7M]
b) What is Sorting? Explain Topological Sorting. [7M]
2. a) Explain Algorithm to Compute Maximum Matching? [7M]
b) List the Steps of Edmonds Blossom Algorithm? [7M]
3. a) Discuss about Maxflow-mincut Theorem? [7M]
b) Interpret the Differences Between Ford-Fulkerson and Edmond-Karp Algorithms? [7M]
4. a) Discuss with example about dynamic programming? [7M]
b) Explain Interpolation Problem? [7M]
5. a) Discuss about NP Hardness with example? [7M]
b) Discuss about Randomized Algorithms? [7M]
6. a) Elaborate the Space Analysis? [7M]
b) Explain Quick Sort with Example? [7M]
7. a) Classify the application of MST? [7M]
b) Explain about Augmentation? [7M]
8. a) Discuss about Strassen's Algorithm? [7M]
b) Elaborate about LUP Decomposition? [7M]

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