

Discrete Mathematics Journal

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1 NOTICE

- i Thursday's class will meet at the computer lab (t`ang 5). We shall learn how to use the AIMMS software.
- ii The tutorial for this class was placed in the Supplements folder.
- iii Assignment-4 is posted.
- iv A file callen mining.pdf which we shall be using later on AIMMS is in the Supplements folder in week-6.
- v We shall cover Lecture-8. You can see it in Week-6 folder.
- vi The file Lecture-7.pdf was updated to include the proof of the correctness of Kruskal's algorithm.

2 Week 5

1. Topics for this week:
Lecture-7
 - a. Kruskal's Minimum Cost Spanning Tree (MCST) algorithm
 - b. Prim's MCST algorithm.
 - c. Dijkstra's shortest path algorithm.
 - d. Floyd's all-pairs shortest path algorithm.
2. Prep-9, a grabage collection problem.
3. The supplements folder will contain auxiliary files corresponding to the material covered in this week.
4. Here is a list of folders and files in the supplements folder:
 - A folder: GraphsGeneration contains a java program that generates graphs with instructions how to use it.

- Dijkstra: an adjacency matrix used in class to demonstrate Dijkstra's algorithm.
- Floyd a complete demonstration of an execution of Floyd's algorithm.
- A URL demonstrating Kruskal's Prim's and Dijkstra's algorithm. Requires internet connection.