HOME WORK ASSIGNMENT#4

Due Date: NOV 21, 2006 (10x100=1000 points)
CS 4/56101 DESIGN & ANALYSIS OF ALGORITHM
Fall 2006, Department of Computer Science, Kent State University

Topics: Graph, SPF, APSF, Spanning Tree, Ford and Fulkerson

1. C-6.2
2. C-6.11
3. R-7.2
4. Proof in detail that Disktra's shortest path algorithm is correct.
5. Derive in detail the complexity of Prim's algorithm
6. Proof that Kruskals' algorithm is correct.
7. R-8.10 (read book)
8. Derive the complexity of the APSF given in 7.11 (read book).
9. Prove that optimum substructure exists in algorithm 7.11 (read book).
10. Give both depth first and breadth first ordered topological sorting of graph in 7.10 beginning from 1.