

**COE 444 - Internetwork Design and Management  
Fall 2004 (Term 041)**

**Homework 6  
- Solution -**

Date: Saturday, December 4, 2004

**Q1.**

**a.** The feasible spanning tree using Kruskal's algorithm is:

**(0, 1), (0, 4), (1, 2), (1, 3), (4, 5)**

Cost = **41**

**b.** The feasible spanning tree using Prim's algorithm is:

**(0, 1), (0, 4), (1, 2), (1, 3), (4, 5)**

Cost = **41**

**c.** The feasible spanning tree using Esau-Williams' algorithm is:

**(0, 1), (0, 2), (1, 3), (2, 4), (3, 5)**

Cost = **35**

**Q2.**

**a.** The feasible spanning tree using Kruskal's algorithm is:

**(1, 2), (1, 4), (1, 5), (2, 3), (5, 6)**

Cost = **33**

**b.** The feasible spanning tree using Prim's algorithm is:

**(1, 2), (1, 4), (1, 5), (2, 3), (5, 6)**

Cost = **33**

**c.** The feasible spanning tree using Esau-Williams' algorithm is:

**(1, 2), (1, 5), (1, 6), (2, 3), (4, 5)**

Cost = **20**