

Turn in all numbered problems

1) (5 pts) Chapter 3 Text Book Problem 46 (Distance Vector Routing Protocol)

2) (5 pts) Chapter 3 Text Book Problem 48 (Link State Routing Protocol)

3) (5 pts) Chapter 3 Text Book Problem 52

4) (5 pts) Chapter 3 Text Book Problem 55

5) (5 pts) Chapter 3 Text Book Problem 72

6) (5 pts) Chapter 4 Text Book Problem 5. On part c assume connection conditions of part a. The ignoring R statement means do not provide a table for R and do not include R in the tables for P and Q.

7) (5 pts) Chapter 4 Text Book Problem 6

The following problems are extra problems that you should consider working.

A) A company has been assigned a class C network 212.1.1/24. The company wants to form subnets for four departments with hosts as follows:

Dept. A: 72 hosts, Dept. B 35 hosts, Dept. C 20 hosts and Dept. D. 18 hosts

- Give a possible arrangement of subnet masks to make this possible (these masks will not be a standard CIDR masking and will not be all continuous 1's)
- What can be done if Department D Grows to 34 Hosts.

B) For the routing table using CIDR shown (addresses are in Hex), give the next hop for packets with the destinations shown

a) C4.4B.31.2E

b) C4.5E.05.09

c) C4.4D.31.2E

d) C4.5E.03.87

e) C4.5E.7E.12

f) C4.5E.D1.02

**Routing Table**

Network/Mask	Next Hop
C4.5E.2.0/23	A
C4.5E.4.0/22	B
C4.5E.C0.0/19	C
C4.5E.40.0/18	D
C4.4C.0.0/14	E
C0.0.0.0/2	F
80.0.0.0/1	G