ITEC350 - Homework 1

(Due: 2/14/2005, 11:00am)

Please submit this homework in RU01 folder of your dropbox. Your homework will be collected automatically at 11:00am. Thus, please submit it before 11:00am.

Question 1

Radford Corporation has the following class C Internet License:

201.35.15.0

Radford Corp. would like to allow for at least 13 sub-networks using classful subnetting.

How should Radford Corp. divide up the bits in their Class C license to allow for this?
How many devices on each subnet would this allow?
What would their subnet mask be?
What would be the IP address (Subnet ID) of the first subnet?
What would be the IP address of the first machine on the first subnet?
What would be the IP address of the last machine on the first subnet?
What would be the broadcast address of the first subnet?
What would be the IP address (Subnet ID) of the second subnet?
What would be the IP address of the first machine on the second subnet?
What would be the IP address of the last machine on the second subnet?
What is the broadcast address of the second subnet?
What would be the IP address (Subnet ID) of the last subnet?
What would be the IP address of the first machine on the last subnet?
What would be the IP address of the last machine on the last subnet?
What is the broadcast address of the last subnet?

Question 2

RU Corporation has the following class B licence:

182.5.0.0.

RU Would like to classfully divide this into exactly 30 (sub-) networks.

How should ABC divide up the bits in their Class B license to allow for this?
Exactly how many subnets would be allowed for?
How many devices on each subnet would this allow?
What would their subnet mask be?
What would be the IP address (Subnet ID) of the first subnet?
What would be the IP address of the first machine on the first subnet?
What would be the IP address of the last machine on the first subnet?
What would be the broadcast address of the first subnet?
What would be the IP address (Subnet ID) of the second subnet?
What would be the IP address of the first machine on the second subnet?
What would be the IP address of the last machine on the second subnet?
What is the broadcast address of the second subnet?
What would be the IP address (Subnet ID) of the last subnet?
What would be the IP address of the first machine on the last subnet?
What would be the IP address of the last machine on the last subnet?
What is the broadcast address of the last subnet?