

# ITEC641 - Homework 1

## **Question 1**

Radford Corporation has the following class C Internet License:

193.45.1.0

Radford Corp. would like to allow for at least 9 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 useable subnet id?

What would be the IP address of the first useable host id on the first usable subnet id?

What would be the IP address of the last useable host id on the first useable subnet id?

What would be the broadcast address of the first useable subnet id?

What would be the IP address (Subnet ID) of the second subnet id?

What would be the IP address of the first useable host id on the second useable subnet id?

What would be the IP address of the last useable host id on the second useable subnet id?

What is the broadcast address of the second useable subnet id?

What would be the IP address (Subnet ID) of the last useable subnet id?

What would be the IP address of the first useable host id on the last usable subnet id?

What would be the IP address of the last usable host id on the last useable subnet id?

What is the broadcast address of the last useable subnet id?

## **Question 2**

RU Corporation has the following class B licence:

132.45.0.0.

RU would like to classfully divide this into exactly 62 (sub-) networks.

How should RU Corp. divide up the bits in their Class B 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 useable subnet id?  
What would be the IP address of the first useable host id on the first usable subnet id?  
What would be the IP address of the last useable host id on the first useable subnet id?  
What would be the broadcast address of the first useable subnet id?  
What would be the IP address (Subnet ID) of the second subnet id?  
What would be the IP address of the first useable host id on the second useable subnet id?  
What would be the IP address of the last useable host id on the second useable subnet id?  
What is the broadcast address of the second useable subnet id?  
What would be the IP address (Subnet ID) of the last useable subnet id?  
What would be the IP address of the first useable host id on the last usable subnet id?  
What would be the IP address of the last usable host id on the last useable subnet id?  
What is the broadcast address of the last useable subnet id?