

## ITEC 350 Homework 2

### ❖ VLSM (Variable Length Subnet Masking)

Given:

Radford Corporation has the following class C Internet License:  
193.45.1.0

Subnets:

- AtlantaHQ: 58 hosts
- PerthHQ: 26 hosts
- SydneyHQ: 10 hosts
- CorpusHQ:10 hosts
- WAN1: 2 IP addresses
- WAN2: 2 IP addresses
- WAN3: 2 IP addresses

**Questions:** Give the answers to the following questions for each subnet including the three WANs.

1. How many bits need to be used for a host id?
2. How many bits need to be used for a subnet id?
3. What is the subnet id?
4. What is the subnet mask?
5. What is the IP address of THIS subnet?
6. What is the IP address of the first usable host id in this subnet?
7. What is the IP address of the last usable host id in this subnet?
8. What is an address range of this subnet?
9. What is the broadcasting address of this subnet in this subnet?