

ITEC452

Homework 1 – VLSM (Variable Length Subnet Masking)

- ❖ **For each subnet, please answer to the following questions below. Please make sure to give *both* the 32 binary number and the dotted decimal notation.**

Given:

IP address 193.2.3.0/24

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

Question 1. How many bits need to be used for a host id?

Question 2. How many bits need to be used for a subnet id?

Question 3. What is the subnet id?

Question 4. What is the IP address for the 1st usable host id in the subnet?

Question 5. What is the IP address of the last useable host id in the subnet?

Question 6. What is the broadcasting IP address for the subnet?

Question 7. What is the subnet mask for the subnet?