# CNT 4007C - Theory and Fundamentals of Computer Networks Homework Assignment 5

### Problem 4 – 2 Points

### A main router is assigned a class B network address. If the subnet mask of the router is 255.255.252.0. Determine the maximum number of subnets that the router can support?

### Problem 5 – 8 Points

For the given IP address ***196.62.146.174/25***, answer the following questions:

1. Subnet Mask
2. Number of Subnets
3. Block-size for the subnet mask
4. Valid Subnets
5. Total Hosts
6. Valid Hosts per subnet
7. Broadcast address of each subnet
8. Network address of each subnet

**Problem 6 – 4 Points**

For the given IP address ***128.168.0.1/20***, calculate the Subnet mask, Network address, total number of host addresses possible in the network and possible range of host addresses?

Submission Instructions:

1. Submit a single pdf document for your solution to all problems. Submitting multiple files may result in deduction of points.
2. Your submission must list your name, major, date of submission and course prefix [CNT 4007C] on the header area.