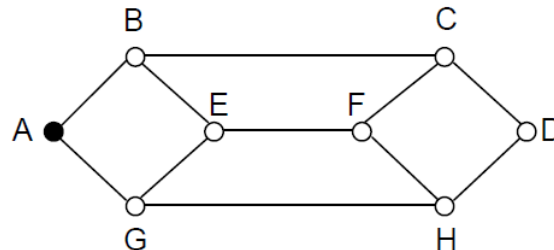# B38CN: Introduction Communications and Networks
Tutorial 6 (Chapter 5 & 6)

1. Consider the following subnet. Suppose that it uses flooding as the routing algorithm. If a packet sent by A to D has a maximum hop count of 3, list all the routes it will take. Also tell how many hops it uses.

2. Consider the following subnet. Suppose distance vector routing is used, and the following vectors have just come into router C: from B: (5, 0, 6, 9, 7, 10); from D: (12, 4, 5, 0, 6, 10); and from E: (11, 6, 4, 9, 0, 8). The measured delays from C to B, D, and E are 5, 8, and 2, respectively. What is C's new routing table? Give both the outgoing line to use and the expected delay.
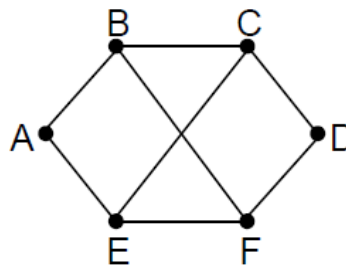
3. A network on the Internet has a subnet mask of 255.255.252.0. What is the maximum number of hosts it can handle?

4. List three typical reasons of congestion in a network.

5. Explain what the count-to-infinity problem is with distance vector routing.