COSC244 Tutorial
From Lecture 17 & 18

1. What is the TCP/IP reference model?

2. What is the TCP/IP protocol suite?

3. What is the Domain Name System (DNS)?

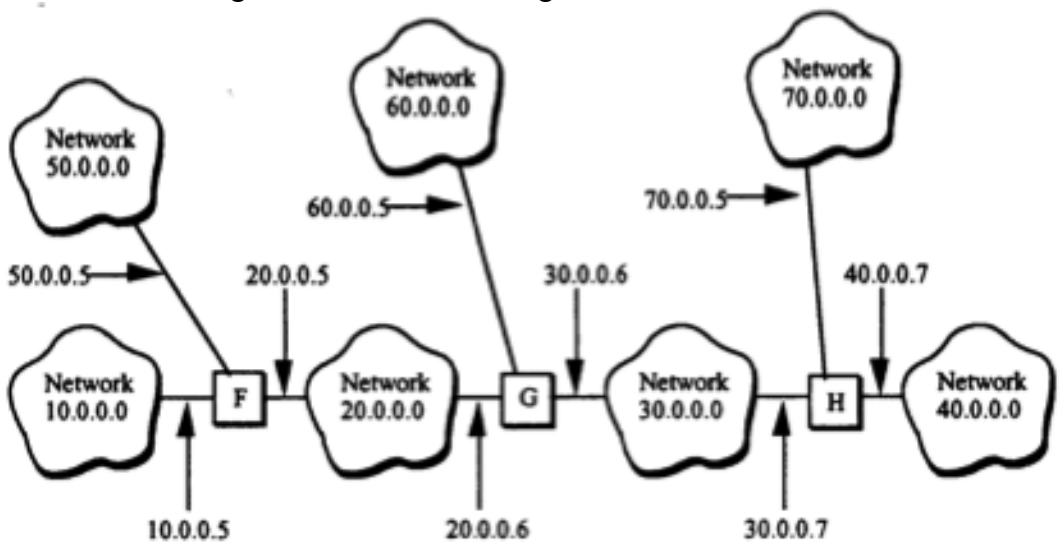
4. a. Distinguish between an Internet name and an Internet address.
   b. Give an example of each.
   c. How is a name translated to an address?

5. What is the Address Resolution Protocol (ARP)?

6. a. Distinguish between an Internet address and a MAC address.
   b. Give an example of each.
   c. How is an IP address translated to a MAC address?

7. What is an IP packet? What is the time-to-live field in an IP packet?

8. Create the routing tables for the following network.



9. Using the above routing table, explain how an IP packet is delivered from a host 50.0.0.1 in the network 50.0.0.0 to the host 40.0.0.1 in the network 40.0.0.0.

10. List some of the major functions of IP.

11. What is a Maximum Transfer Unit (MTU)? How does it affect the Internet Protocol?

12. Why is IP packet fragmenting sometimes necessary? How does IPv4 fragmentation differ from IPv6 fragmentation?

13. Why did IPv6 eliminate the checksum in the packet header?

14. List several factors that contribute to IPv6's ability to route more quickly.