Review and Study Questions for Wide Area Networks (WAN)
Data Communications - Dr. John T. Gorgone

1. Name three types of commonly used switch communication networks.

2. Name three types of commonly used broadcast communication networks.

3. Describe (A) a switched communication network and (B) a broadcast communication network.

4. Explain circuit switching. Discuss an example of circuit switching.

5. Explain message switching. Discuss an example of message switching.

6. What are the advantages of message switching over circuit switching node?

7. What are some functions performed by a message switching node?

8. What are the disadvantages of message switching?

9. Explain packet switching. Discuss an example of packet switching.

10. Discuss packet switching vs circuit switching.

11. Explain the internal datagram approach to packet switching

12. Explain the internal virtual circuit approach to packet switching.

13. Explain the external virtual circuit approach to packet switching.


15. Explain the external datagram approach to packet switching.

16. Compare the following four switching techniques: Circuit switching vs Message switching vs Datagram packet switching vs virtual circuit packet switching.

17. The key technical issue in broadcast networks is access control techniques. The key parameters in any medium access control technique are where and how. “Where” refers to whether control is exercised in a centralized or distributed scheme. What are the advantages and disadvantages of a centralized scheme? What are the advantages and disadvantages of a distributed scheme?
18. What are the three categories of asynchronous access control techniques that can be used in broadcast networks?

19. Name some examples of network service requirements.

20. Define and discuss alternate and adaptive routing approaches.


22. Define and describe a private network?

23. What is MAN?