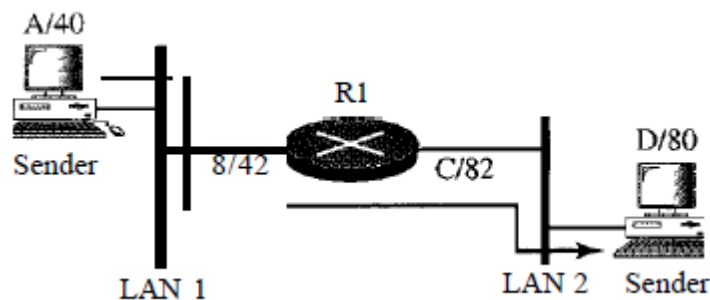


Assignment 1

Submission Date: November 5th, 2020

1. What is the difference between network layer delivery and transport layer delivery?
2. What is a peer-to-peer process?
3. How does information get passed from one layer to the next in the Internet model?
4. What are the concerns of the physical layer in the Internet model?
5. What are the responsibilities of the data link layer in the Internet model?
6. Match the following to one or more layers of the OSI model:
 - a. Communicates directly with user's application program
 - b. Error correction and retransmission
 - c. Mechanical, electrical, and functional interface
 - d. Responsibility for carrying frames between adjacent nodes
7. Match the following to one or more layers of the OSI model:
 - a. Format and code conversion services
 - b. Establishes, manages, and terminates sessions
 - c. Ensures reliable transmission of data
 - d. Log-in and log-out procedures
 - e. Provides independence from differences in data representation
8. In Figure, computer A sends a message to computer D via LAN1, router R1 and LAN2. Show the contents of the packets and frames at the network and datalink layer for each hop interface.



9. Suppose a computer sends a packet at the network layer to another computer somewhere in the Internet. The logical destination address of the packet is corrupted. What happens to the packet? How can the source computer be informed of the situation?
10. If the data link layer can detect errors between hops, why do you think we need another checking mechanism at the transport layer?