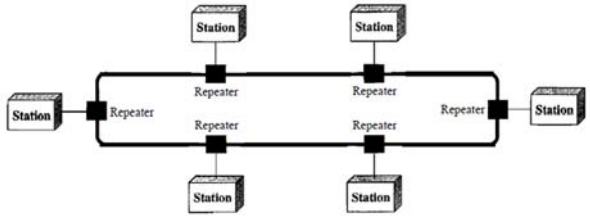
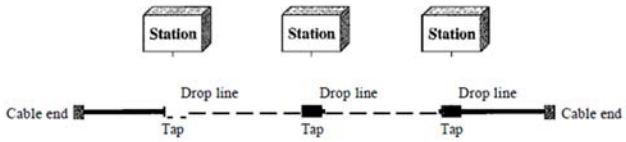
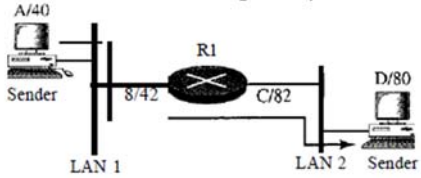
Department of Electrical Engineering
Mid – Term Summer 2020
Date: 20/08/2020

Course Details

Course Title: Computer Communication Network **Module:** 06
Instructor: _____ **Total Marks:** 30

Student Details

Name: _____ **Student ID:** _____

Q1.	(a)	1. You have two computers connected by an Ethernet hub at home. Is this a LAN, a MAN, or a WAN? Explain your reason. 2. In the ring topology in the following Figure, what happens if one of the stations is unplugged?  3. In the bus topology in the following Figure, what happens if one of the stations is unplugged?  4. Draw a hybrid topology with a ring backbone and two bus networks.	Marks 08 CLO 1
Q2.	(a)	1. What are headers and trailers, and how do they get added and removed? 2. What is the difference between a port address, a logical address, and a physical address? 3. How do the layers of the Internet model correlate to the layers of the OSI model? 4. Match the following to one or more layers of the OSI model: a. Reliable process-to-process message delivery b. Route selection c. Defines frames d. Provides user services such as e-mail and file transfer e. Transmission of bit stream across physical medium	Marks 12 CLO 1
Q3.	(a)	In the following Figure, assume that the communication is between a process running at computer A with port address i and a process running at computer D with port address j. Show the contents of packets and frames at the network, data link, and transport layer for each hop.  	Marks 06 CLO 1
	(b)	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?	Marks 04 CLO 1