

Directions: Answer any 6 questions in the space provided or on separate sheets, with at most one question _____
per side. One 8.5 x 11 inch note sheet is permitted. No talking. Closed book. Show your work.

1. a) Describe the 802.3 medium access protocol in terms of when a station is able to transmit and how transmissions are known to be successful.
b) Contrast active headend and passive headend broadband topologies for 802.3.
c) What are the limitations on the size of a baseband 802.3 network and why?
2. a) Describe the 802.4 medium access protocol in terms of when a station is able to transmit and how transmissions are known to be successful.
b) What fault-tolerant features are present in 802.4 and why?
c) How is a new station added to an 802.4 configuration?
3. a) Describe the 802.5 medium access protocol in terms of when a station is able to transmit and how transmissions are known to be successful.
b) What fault-tolerant features are present in 802.5 and why? Contrast with 802.4.
c) Compare performance of 802.5 with that of 802.3 and 802.4.
d) What limitations exist on the size of an 802.5 network and why?
4. a) Describe the 802.6 medium access protocol in terms of when a station is able to transmit and how transmissions are known to be successful.
b) Compare the data transfer unit sizes of 802.6, 802.5 and 802.3.
c) Compare the priority mechanisms of 802.4, 802.5 and 802.6.
5. a) Describe and compare amplifiers, repeaters, bridges and routers.
b) Compare source routing bridges with transparent bridges.
c) What is bridge learning, and how do flooding and spanning trees figure in it?