31/01/2020 **CHAPTER 12** MEDIA ACCESS CONTROL ----------------------------------------------------------------------------------------------------------------

1. Define controlled Access and name three different protocols.
2. Explain why collision is an issue in random access protocols but not in controlled access protocols and explain why collision is an issue in random access protocols but not in channelization protocols.
3. Compare random access & channelization.
4. Compare random access & controlled access.
5. Define channelization & list 3 protocols.
6. Compare channelization & controlled access.
7. List 3 categories of multiple access protocols
8. Define random access and list 3 protocols.

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1. *Controlled Access*

In controlled access, stations consult 1 another, to find which station has the right to send. A station cannot send unless it has been authorised among all stations.

The different protocols are –

1. Reservation – A station needs to make a reservation before sending data. Time is divided into intervals
2. Polling – One device is designated as a primary station & the other device is secondary. All data exchanges must be made through the primary station.
3. Token Passing - The station in the network are organised in a logical ring. For each station there is a predecessor and successor. A special packet called a token circulates through the ring. The possession of the token gives the station the right to access the channel and send its data.

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1. In Random access, no station is superior to any other and none is assigned the control over another. Each station can’t transmit data when it desires on the condition that it follows the pre – defined procedure including the testing of the state of the medium. There is no scheduled time for the station to transmit. Transmission is random among the station.

The 3 protocols are –

1. ALOHA – Each station sends a frame whenever it has a frame to send. This protocol relies on the acknowledgement from the receiver.