COLLEGE OF ENGINEERING & TECHNOLOGY

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Course : Communication Networks
Course Code : EC 553

Sheet (3)- Multiple Access

1- How does CSMA/CD differ from CSMA/CA?

2- How is CDMA superior to FDMA? How is CDMA superior to TDMA?

3- Multiple Choice

a. In the _____ random access method, stations do not sense the medium.

- ❑ ALOHA
- ❑ CSMA/CD
- ❑ CSMA/CA
- ❑ Ethernet

b. In the p-persistent approach, when a station finds an idle line, it _____.

- ❑ Waits 0.1s before sending
- ❑ Waits 1 s before sending
- ❑ Waits a time equal to 1-p before sending
- ❑ Sends immediately

c. A network using the CSMA random-access method with p equal to 0.25 will send _____ percent of the time after accessing an idle line.

- ❑ 25
- ❑ 50
- ❑ 75
- ❑ 100

d. _____ is a random access protocol.

- ❑ MA
- ❑ Polling
- ❑ FDMA
- ❑ CDMA

e. _____ is a controlled access protocol.

- ❑ reservation
- ❑ FDMA
- ❑ TDMA
- ❑ CSMA

f. _____ is (are) a channelization protocol.

- ❑ FDMA
- ❑ TDMA
- ❑ CDMA
- ❑ All of the above

g. In the reservation access method, if there are 10 stations on a network, then there are _____ reservation minislots in the reservation frame.

- ❑ 5
- ❑ 9
- ❑ 10
- ❑ 11

4- Complete the table below for the different protocols discussed in this chapter. Answer Yes or No.

Characteristic	**ALOHA**	**CSMA/CD**	**CSMA/CA**	**Token passing**	**Channel-ization**
Multiple access					
Carrier sense					
Collision checking					
Acknowledgment					

5- Show the Walsh table for $W_{16.}$