



Kafrelsheikh University - Faculty of Engineering

Course	Elective Course (2) Mobile and Wireless networks	Date	1/1/2018
Time	3 Hours	Marks	70
Students	4 th Year Computers and Systems		

This Exam measures ILOs a.13, a.15, a.18, b.18, c.18

Answer all the following questions:

Clarify your answer with the suitable diagrams.

Q1. Explain the effect of Shadowing, Reflection and Refraction on radio signals. (10 Marks)

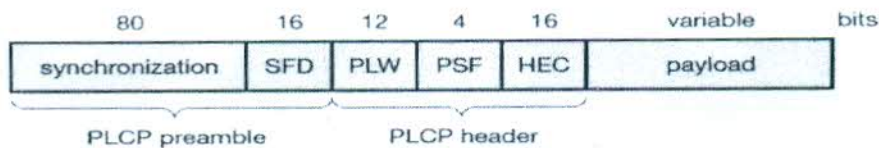
Q2. Compare between the following: (10 Marks)

a-Amplitude Shift Keying and Phase Shift Keying.

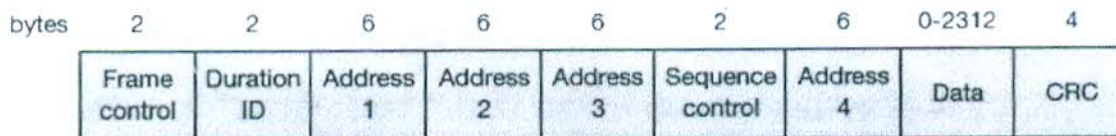
b-Frequency Division Multiplexing and Code Division Multiplexing.

Q3. Explain the Bearer Service of the GSM Mobile System. (10 Marks)

Q4. Explain the following Frame of the Frequency hopping spread spectrum. (10 Marks)



Q5. The following is the MAC Frame of the 802.11 protocol. (10 Marks)



Explain The purpose of each block of the MAC Frame.

Q6. State the general advantages and disadvantages of WLANs compared to their wired counterparts. (10 Marks)

Q7. Compare between the infrared and the radio transmission in terms of the advantages and disadvantages of each technology. (10 Marks)

Good Luck and Best Wishes

Dr. Ibrahim Elashry