



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**M.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE**

**THIRD SEMESTER – NOVEMBER 2017**

**CS 3822 – WIRELESS AND COMMUNICATION NETWORKS**

Date: 04-11-2017

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART-A**

Answer All the Questions.

10 X 2=20

1. Define frequency reuse factor?
2. Mention the different types of adhoc wireless network topology?
3. What is CDMA?
4. Write the goal of i-mode technology.
5. Classify the mobile data networks.
6. What are the new elements added to the GSM architecture to support GPRS?
7. What is the difference between an ESS and a BSS in the IEEE802.11?
8. Write the difference between parked node and standby node.
9. Define Encapsulation.
10. List the different messages used for optimization.

**PART- B**

Answer All the Questions

5 X 8=40

- 11 (a) Compare Adhoc and infrastructure Topologies in wireless networks.  
OR  
(b) Explain Handoff decision time algorithms.
- 12 (a) Discuss the reference architecture of GSM with neat diagram.  
OR  
(b) Explain the purpose of pilot channels in CDMA with a neat diagram.
- 13 (a) Discuss the services offered by CDPD and the interfaces used in CDPD.  
OR  
(b) What is WAP? Explain how internet based applications are adapted to the cellular system using WAP
- 14 (a) Explain MAC management of IEEE 802.11.  
OR  
b) Discuss Bluetooth architecture with neat diagram.
- 15 (a) Discuss the entities and terminologies used in mobile IP.  
OR  
b) Elaborate the concept and working of snooping TCP with a neat diagram.

**PART-C**

Answer any TWO Questions.

2 X20=40

- 16 (a) Discuss the following (i) Cellular concepts (5)  
(ii) Cellular hierarchy (5)

(b) Discuss the following concepts in GSM.

- (i) Physical burst (5)
- (ii) Frame hierarchy (5)

17 (a) Write short notes on

- i. SMS (5)
- ii. GPRS (5)

(b) Elaborate the different frame structures of physical layers of IEEE 802.11

18 a) Discuss the following in Mobile IP.

- (i) Packet delivery (5)
- (ii) Agent discovery (5)

b) Discuss different access methods of MAC layer in IEEE 80211.

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