LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – APRIL 2017

CS 3822- WIRELESS AND COMMUNICATION NETWORKS

Date: 28-04-2017 Dept. No. Max. : 100 Marks
Time: 01:00-04:00

PART-A

Answer All the Questions. 10 X 2=20

1. Define frequency reuse factor?
2. What are smart antennas?
3. Write the purpose of PN-spreading code.
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. What is the advantage of using DHCP in a Network?

PART- B

Answer All the Questions 5 X 8=40

11 (a) Explain advantages and disadvantages of cell splitting.

OR

(b) Explain Handoff decision time algorithms.

12 (a) Discuss the reference architecture of GSM.

OR

(b) Explain the purpose of pilot channels in CDMA with neat diagram.

13 (a) Discuss the services offered by CDPD and the interfaces used in CDPD.

OR

(b) Explain how internet based application are being adapted to the cellular system using WAP.

14 a) Explain the MAC management in IEEE80211.

OR

b) Discuss the Bluetooth architecture with neat diagram.

15 (a)Compare IPV4 and IPV6 Mobile IP.

OR

b) Explain the concept and working of snooping TCP with neat diagram.

PART-C

Answer any TWO 2 X20=40

16 (a)Discuss mobility management in wireless network operations.

(b) Discuss the following concept in GSM.

(i) Physical burst
(ii) Frame hierarchy
(iii) Traffic channels.

17 (a) Write short note on
i. SMS
ii. SGSN
iii. GGSN.
(b) Discuss about the different frame structures of physical layers of IEEE 802.11

18 a) Discuss the following in Mobile IP.
(i) Packet delivery ----(3)
(ii) Triangular routing---(2)
(iii) Agent discovery----(5)

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

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