LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – NOVEMBER 2015

CS 3822 - WIRELESS AND COMMUNICATION NETWORKS

Date : 07/11/2015 Dept. No. Max. : 100 Marks
Time : 09:00-12:00

PART-A

Answer All the Questions. **10 X 2=20**

1. What is Ad Hoc network topology?
2. Define co channel reuse ratio.
3. Mention the types of bursts for traffic and control signaling in GSM.
4. Write the types of soft handoffs defined in IS-95.
5. Give any two design goal of CDPD.
6. What is SMS?
7. Define Piconet.
8. List out different types of HIPERLAN.
9. Write any two difference between IPv4 and IPv6.
10. What are the issues in reverse tunneling.

PART- B

Answer All the Questions **5 X 8=40**

11(a) Name the five different cell types in the cellular hierarchy and compare them in terms of coverage area and antenna site.

OR

(b) Explain Handoff decision time algorithms.

12 (a) Explain different physical packet burst in GSM.

OR

(b) Discuss the application of CDMA and Compare W-CDMA and CDMA 2000 proposals.

13 (a) Discuss the different categories of mobile data networks with example for each.

OR

(b) Explain the purpose of i-Mode service and give an example for i-Mode service

14 (a) Explain different spread spectrum used in physical layer of IEEE 802.11

OR

(b) Explain the protocol stack of Bluetooth.

15 (a) Discuss the entities and terminology used in mobile IP.

OR

(b) Discuss the function , advantages and disadvantages of Indirect TCP.

PART-C

Answer any TWO **2 X20=40**

16 (a) Explain channel allocation techniques used in capacity expansion in cellular topology.

(b) Write short note about the following CDMA forward channels

(i) Pilot channel (ii) Sync channel

17 (a) Explain GPRS architecture reference model with neat diagram.

(b) Discuss MAC layer of wireless LAN with a neat diagram.

18 (a) Compare the different approaches used in classical enhancements to TCP.

(b) Explain the following concepts of CDPD.

(i) Services

(ii) Interfaces

(iii) Mobility management.

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