LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

SIXTH SEMESTER – **APRIL 2022**

16/17/18UCS6MC01 – WIRELESS COMMUNICATION NETWORKS

Date: 15-06-2022 Dept. No. Max. : 100 Marks

Time: 01:00 PM - 04:00 PM

PART – A

Answer ALL questions **(10x 2 = 20 Marks)**

1. Write some examples for wireless communication system.
2. What is base station?
3. Classify the TDMA frame structure in GSM.
4. Define cell breathing in CDMA network planning.
5. Classify the mobile data networks.
6. What are the new elements added to the GSM architecture to support GPRS?
7. What is extended service set (ESS) in IEEE802.11?
8. List out the types of HIPERLAN.
9. What is firewall?
10. Write the purpose of DHCP.

PART – B

Answer all questions **(5 x 8 = 40 Marks)**

11 (a) Distinguish between ad hoc and infrastructure network topologies.

OR

(b) Explain power control and power savings mechanism used in cellular networks.

12 (a) Write the forward channel in CDMD with neat diagram

OR

(b) Discuss the purpose of pilot channels in CDMD with neat diagram.

13 (a) Describe the services provided by CDPD and the interfaces that it employ.

OR

(b) What is GPRS? Explain its architecture with neat diagram.

14 (a) Explain the IEEE 802.11 MAC management sublayer.

OR

(b) Explain about the elements of core protocol in Bluetooth.

15(a) Discuss the entities used in mobile IP for packet delivery.

OR

(b) Elaborate the concept and working of fast retransmit and recovery TCP.

PART – C

Answer any Two question **(2 x 20 = 40 Marks)**

16 (a) Explain the architectural methods required for cellular technology capacity expansion.

(b).What are logical channels and write the different types in GSM technology?

17(a) Explain the Mobile application protocol with neat diagram.

(b) Explain about physical layer of IEEE 802.11.

18(a) Compare the different approaches used for mobile TCP.

(b) Write the concept of Tunneling in detail with an example.

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