



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

SIXTH SEMESTER – APRIL 2023

16/17/18UCS6MC01 – WIRELESS COMMUNICATION NETWORKS

Date: 29-04-2023

Dept. No.

Max. : 100 Marks

Time: 09:00 AM - 12:00 NOON

PART – A

(10x 2 = 20 Marks)

Q. No

Answer ALL the Questions

- 1 Write some examples for wireless communication system.
- 2 What is base station?
- 3 In GSM, classify the TDMA frame structure.
- 4 What is CDMA?
- 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

(5 x 8 = 40 Marks)

Answer ALL the Questions

- 11 (a) Identify and write the differences between infrastructure and ad hoc network topologies.
(Or)
(b) Describe the power management and energy-saving techniques used in cellular networks.
- 12 (a) Draw a neat diagram of the forward channel in CDMD and explain.
(Or)
(b) Discuss the purpose of pilot channels in CDMD with neat diagram.
- 13 (a) Give an overview of the services CDPD offers and the interfaces it uses.
(Or)
(b) What is GPRS? Explain its architecture with neat diagram.
- 14 (a) Explain the IEEE 802.11 MAC management sub layer.
(Or)
(b) Explain about the elements of core protocol in Bluetooth.
- 15 (a) Discuss the TCP snooping with an example.
(Or)
(b) Elaborate the concept of transaction oriented TCP.

PART – C

(2 x 20 = 40 Marks)

Answer any TWO Questions

- 16 (a) Elucidate the architectural methods required to scale the capacity of cellular technology. (10)
- (b) What are logical channels and explain its categories in GSM technology. (10)
- 17 (a) Explain the Mobile application protocol with neat diagram. (10)
- (b) Elaborate IEEE 802.11's physical layer. (10)
- 18 (a) Compare the different approaches used for mobile TCP. (10)
- (b) Describe the idea of tunneling in depth using an example. (10)

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