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Question Paper Code : 21426

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Eighth Semester

Electronics and Communication Engineering

EC 2043/EC 808/10144 ECE 57 — WIRELESS NETWORKS

(Regulations 2008/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Give the difference between mobile controlled and mobile assisted handoff?
2. What is capture effect?
3. Define Roaming.
4. What is IS-95?
5. Enlist the advantages of WiMax standard.
6. Mention the five major challenges for implementation of Wireless LANs.
7. What are Hybrid protocols?
8. Define LEAP Protocol and LEACH protocol.
9. Write the major features of WPAN.
10. Name the four states that a Bluetooth terminal.

PART B — (5 × 16 = 80 marks)

11. (a) (i) What is FDMA- Explain the different features of FDMA. (10)
(ii) Compare CDMA, TDMA and FDMA. (6)

Or

- (b) (i) Discuss in detail the performance of the random access scheme for data oriented networks. (10)
(ii) Write notes on privacy and security. (6)
12. (a) (i) Explain the principle, frame structures and working of TDMA system. (8)
(ii) With necessary diagram the GPRS system architecture. (8)

Or

- (b) Draw the GSM protocol architecture and explain the call establishment in GSM using the logical channels. (16)
13. (a) (i) Sketch the IEEE 802.11 WLAN architecture and discuss its services. (8)
(ii) Explain the MAC management sub layer of IEEE 802.11 in terms of handoff and power management. (8)

Or

- (b) Draw and explain the architecture and layers of HIPERLAN. (16)
14. (a) Illustrate the process of route establishment and route maintenance in Destination Sequenced Distance-Vector Routing Protocol (DSDV) by taking an example. (16)

Or

- (b) Explain the MAC protocols of wireless sensor networks in detail. (16)
15. (a) Explain in detail about the architecture and MAC layer details of Bluetooth technology. (16)

Or

- (b) Describe in detail about the architecture and characteristics of IEEE 802.16 WMAN. (16)