Reg. No. : | | | | | | | | | | | | |

Question Paper Code : 40414

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Sixth Semester

Electronics and Communication Engineering

EC 8004 – WIRELESS NETWORKS

(Regulations 2017)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Mention the design goals of WLANs.
2. Compare IEEE802.11a and IEEE802. 11b standards.
3. List out the critical mechanism of mobile IP.
4. Define encapsulation and decapsulation.
5. Illustrate the interference mitigation techniques used in TD-SCDMA.
6. What are the main components in the UTRAN interface?
7. Give the advantages and limitations of WLAN.
8. Define WLAN adaptation function.
9. Expand and define MVNO.
10. State the essential features of 4G mobile networks.

PART B — (5 × 13 = 65 marks)

11. (a) Describe the architecture and the protocol stack of Bluetooth technology. (13)

Or

(b) Discuss in detail about the :

(i) Wireless USB. (6)

(ii) Zigbee Protocol. (7)

12. (a) Elaborate on Destination Sequence Distance Vector (DSDV) algorithm with an illustration. (13)

Or

(b) State the entities and terminologies used in mobile IP along with the tunnelling. (13)

13. (a) Explain in detail the UMTS core network architecture with a neat sketch. (13)

Or

(b) Write short notes on :

(i) Network structure of TD-CDMA. (8)

(ii) Radio network of TD-CDMA. (5)

14. (a) With neat diagram, explain Multichannel Multipoint Distribution System (MMDS) and compare it with Local Multipoint Distribution System (LMDS). (13)

Or

(b) Discuss the architecture of

(i) GPRS (8)

(ii) WLAN. (5)

15. (a) Draw the architecture of IMS and explain. (13)

Or

(b) Describe the 4G vision, 4G features, and challenges with its applications. (13)

PART C — (1 × 15 = 15 marks)

16. (a) Sketch the architecture of the Hiper LAN II protocol and explain. (15)

Or

(b) Illustrate the Long-term evolution with its architecture, standards, and radio spectrum. (15)

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