

B.E/B.Tech. (Full Time) DEGREE END SEMESTER EXAMINATIONS, APRIL/MAY 2014

ELECTRONICS AND COMMUNICATION ENGINEERING

VII SEMESTER

EC 9024 – WIRELESS NETWORKS

REGULATIONS : 2008

Time: 3 hours

Maximum Marks: 100

Answer ALL questions

PART A (10 X 2 = 20 Marks)

1. Bring out the frame format of MAC Management Sublayer.
2. A station A operating in 802.11b network in Ad Hoc mode. Given the SIFS=10ms, DIFS=50ms, slot time=20ms and CW_{min}=31, the station A has to transmit 2 MSDU packets. Find the time taken to get the ack for the second packet, when there are no other competing stations in the network.
3. Spot the difference of the Core Network of UMTS from that of GPRS and explain about it.
4. Draw the channel structure of TD-CDMA.
5. What are the characteristic requirements of MANET?
6. Define the term WSN
7. Among various Interworking requirements explain about service continuity.
8. In the LMDS services what does the term local denotes?
9. What are the application areas of 4G?
10. Give the expressions that determines the SNR and Channel capacity of SIMO in smart antenna techniques.

PART B (5 X 16 = 80 MARKS)

11. Describe in detail about various mechanisms involved in Implementing IEEE802.11.

12. a) Briefly explain the architecture of CDMA 2000 with a neat sketch.

(OR)

b) Describe in detail about TD-SCDMA with its system Architecture.

13. a) i. Describe the Characteristics of MANET (6)

ii. With a neat diagram, explain about AODV protocol in detail. (10)

(OR)

b) Bring out the broad classification of MAC and Routing Protocols. Explain any one protocol for each.

14. a) i) Describe about the interworking requirements. (6)

ii) With a neat sketch explain the Interworking Architecture for WLAN and GPRS. (10)

(10)

(OR)

b) Briefly Explain about the LMDS services with an example.

15. a) Briefly explain about the Features of 4G and the challenges to be faced by it along with possible solutions to overcome those challenges.

(OR)

b) Explain in detail about the 4G Technologies.
