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Question Paper Code: 59413

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Elective

Electronics and Communication Engineering

15UEC913–WIRELESS NETWORKS AND STANDARDS

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5x 1 = 5 Marks)

1. The type of access used in GSM technology is CO1 -R
(a) FDMA/TDMA (b) CDMA (c) OFDMA (d) None of the above
2. The uplink frequency of P-GSM system is CO2 -R
(a) 1850-1910Mhz (b) 1710-1785 Mhz (c) 890-915 Mhz (d) None of the above
3. The IEEE 802.11 wireless LANs use _____ types of frames. CO3 -R
(a) Four (b) Five (c) six (d) None of the above
4. The caching and multipath routing protocol (CHAMP) makes use of CO4 -R
temporal locality in
(a) Dropped Packets (b) Returned Packets (c) Sent Packets (d) All of the above
5. Which of the following is a collection of many separate networks? CO5 -R
(a) WAN (b) PAN (c) ZAN (d) MAN

PART – B (5 x 3= 15 Marks)

6. Compare dynamic channel assignment and fixed channel assignment. CO1- R
7. Determine the capacity of GSM for $k = 3$. CO2 -App
8. What are the functions of physical layer of IEEE 802.11 system? CO3 -R
9. Compare hierarchical routing and flat routing in sensor networks. CO4 -U
10. Write Power consumption level changes when a Bluetooth device is in CO5 -U
different states.

PART – C (5 x 16= 80 Marks)

11. (a) Explain in detail the methods of data services get integrated with Voice Oriented Networks. CO1- U (16)
- Or
- (b) In which handoff, a mobile station can communicate with two base stations at the same time. Discuss its operation with example. CO1 -U (16)
12. (a) Explain in detail about GPRS network architecture and its operation. CO2 -U (16)
- Or
- (b) Compare the various parameters for WCDMA and CDMA2000. CO2 -U (16)
13. (a) Compare the Wimax and HIPERLAN standard. CO3 -U (16)
- Or
- (b) Explain any two MAC mechanism used in IEEE 802.11 WLAN systems. CO3- U (16)
14. (a) Explain the source initiated routing protocols for ad hoc networks in detail. CO4 -U (16)
- Or
- (b) Explain the key features of routing protocol in WSN and discuss any two energy efficient routing protocols. CO4- U (16)
15. (a) Discuss briefly about parameter optimization technique in detail. CO5 -U (16)
- Or
- (b) Describe in detail about Architecture of Bluetooth Systems. CO5 -U (16)