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Question Paper Code : 40975

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Eighth Semester

Electronics and Communication Engineering

EC 6802 – WIRELESS NETWORKS

(Regulations 2013)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. Give any three differences between HIPERLAN 1 and HIPERLAN 2.
2. What is IEEE 802.11 ? What are the functions of MAC layer in IEEE 802.11 ?
3. What is a Mobile IP ? What are the entities of Mobile IP ?
4. Differentiate an ad hoc network and a cellular network with respect to
 - a) Bandwidth usage
 - b) Cost effectiveness.
5. Define the term slow start mechanism and Fast Retransmit algorithm in TCP.
6. How the destination correspondent host works ?
7. What is UMTS ? What are the layers of UMTS ?
8. Give the significance about link adaption scheme.
9. List the characteristics of 4G Network.
10. Give the advantages of Multicarrier Modulation over single carrier schemes.

PART – B

(5×16=80 Marks)

11. a) With neat sketch describe the architecture of IEEE 802.11 and explain the MAC Management Techniques. (16)
- (OR)
- b) i) Elucidate the advantages of WLAN Techniques. (5)
 - ii) Explain the architecture of Hyperlan II protocol. (11)



12. a) Explain the Mobile IP session initiation protocol for IP pocket delivery in Mobile IP Networks. (16)

(OR)

b) Explain with neat diagram and example the destination sequence distance vector routing algorithm of Adhoc Networks. (16)

13. a) i) Draw the overview of classical enhancements to TCP for mobility. (6)

ii) Explain in detail about Traditional TCP and its significance. (10)

(OR)

b) How the Mobile TCP is playing the important role in Mobile Transport layer ? Explain with overview of the classical enhancements to TCP for mobility and compare with 2.5/3G wireless networks. (5+5+6)

14. a) Explain in detail about LTE Wireless Systems. (16)

(OR)

b) i) Explain the techniques about UMTS Network Reference Architecture. (8)

ii) Describe Channel Structure in UMTS Terrestrial Radio. (8)

15. a) i) Define 4G and compare the key parameters of 4G with 3G. (11)

ii) Write a note on Cognitive Radio. (5)

(OR)

b) What is a multi-input multi-output (MIMO) system ? Explain and compare. (16)