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Question Paper Code : X 67525

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020
Seventh Semester
Computer Science and Engineering
CS 1007 – WIRELESS NETWORK SYSTEMS
(Regulations 2008)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

PART – A

(10×2=20 Marks)

1. What is the basic difference between a mobile cellular network and an adhoc network ?
2. Differentiate between forward and reverse link.
3. What are the advantages of FDMA systems ?
4. Mention the services used in Telecommunication services.
5. What is the need of orthogonal code ?
6. What is meant by run property ?
7. Name three location update mechanisms.
8. What is message authentication ?
9. Can Wifi and Wimax be the alternative solution for fixed broadband services. Justify your answer.
10. Name the five most important logic channels in GSM.

PART – B

(5×16=80 Marks)

11. a) Explain in detail signal propagation and path loss with suitable diagrams.
(OR)
b) Discuss in detail digital audio broadcasting and video broadcasting.



12. a) Draw and explain the structure forward and reverse channel, guard band in TDMA and FDMA systems. (OR)
- b) Explain the architecture of Wireless Wide Area Networks (WWAN). What the related IEEE standards ?
13. a) i) Deduce the probability of error for binary phase shift keying with necessary block diagram and constellation mapping. (8)
- ii) Compare the performance of digital modulation schemes in slow and fast fading channel. (8)
- (OR)
- b) Briefly explain the use of convolutional code and ARQ scheme to combat multipath and interference in wireless systems. (16)
14. a) Discuss in detail about the mobility management in wireless systems. (16)
- (OR)
- b) Discuss in detail about the security in wireless systems. (16)
15. a) Explain UMTS network reference architecture. (16)
- (OR)
- b) Describe reverse link physical channel of CDMA. (16)
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