

5/11/12

DEGREE :B.E Degree Examinations Nov / Dec 2012
BRANCH ECE
SEMESTER :VII
CODE No./ SUBJECT: EC527 Wireless Network

Time : 3 Hr

Answer ALL Questions

Max. marks:100

Part-A

10x2=20Marks

1. Derive the throughput for Aloha and slotted aloha.
2. Define medium access and list the different types of medium access techniques for voice oriented network.
3. Discuss on fixed channel assignment and dynamic channel assignment for cellular networks
4. Explain the open loop power control technique in CDMA network
5. list any two functions of SGSN block in GPRS network.
6. Define the forward channel, Reverse channel, uplink and down link.
7. With required diagram explain the exposed node problem
8. Explain the association of a node to the WLAN network.
9. How many anchor points are required to find the location of a mobile using signal power based triangulation method.
10. Define the coverage capacity of a Geolocation systems.

PART-B

5x16 =80Marks

- 11a. Explain and derive the throughput for the FDMA ,TDMA techniques used for voice transfer.
 - 12.a) What are different types of interference in cellular network. Calculate the SIR ratio for a cellular system with 6 co channel interfering cells. How to mitigate adjacent channel interference?
(OR)
 - 12.b) Explain with required diagram the three capacity improvement techniques
 - 13.a) Write notes on SMS in GSM network and Mobile application protocol
(OR)
 - 13.b) Explain the Forward channel and reverse channel of IS95 system
 - 14.a) Explain with architecture MAC layer of Wi-fi network.
(OR)
 - 14.b) Give the general architecture HIPERLAN –II and explain the operations of each layer.
 - 15.a) With required diagram explain the operation of Wireless geolocation system using direction based method, triangulation method and TDOA method.
(OR)
 - 15.b) With flow diagram explain the MAC of IEEE 802.15.4.
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