

7E 4238

Roll No.

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7E 4238**B.Tech. VII Semester (Main/Back) Examination - 2014****Computer Engg.****7CS2 Wireless Communication and Network****(Common with CS & IT)****Time : 3 Hours****Maximum Marks : 80****Min. Passing Marks : 24****Instructions to Candidates:**

Attempt any **five** questions, selecting **one** question from each **unit**. All questions carry **equal** marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

Unit - I

1. a) What are the various techniques possible to improve coverage and capacity in cellular? Discuss cell splitting in brief. (10)
- b) Explain the term "Frequency Reuse in cellular network". (6)

OR

1. a) Explain different type of interference which present in cellular system with their resultant effect on the system. Also compute SIR in worst case. (10)
- b) What is handoff in cellular system? Discuss various handoff strategies. (6)

Unit - II

2. a) Why do we need multiple access technique? With all relevant merits. Explain the working of CSMA/CD Technique? (10)
- b) How can collision be avoided in data communication? Explain one such protocol. (6)

OR

2. a) Describe the GSM Cellular architecture and its various features. What are the various standard used in GSM cellular telephony? (10)
- b) Explain the following terms for GSM :
 - i) Home location register (HLR).
 - ii) Visitor location register (VLR). (3×2=6)

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Unit - III

3. a) Explain the purpose and meaning of MAC Scheme. Why are MAC scheme necessary for wireless network but not for wired network? (8)
- b) What are ad-hoc network? Explain IEEE 802.11 protocol architecture. (8)

OR

3. a) What is Bluetooth technology? Explain the packet/frame format for a Bluetooth device. (8)
- b) Explain the networking security and linking management for Bluetooth (8)

Unit - IV

4. a) Explain the basic purpose of DHCP? How DHCP be used for mobility and support of mobile IP? (8)
- b) Explain the concept of Dynamic source routing. (8)

OR

4. a) Discuss Implication of mobility in Traditional TCP in brief? (8)
- b) Explain classical TCP improvements? (8)

Unit - V

5. a) What are the primary goal of the WAP forum effort and how are they reflect in the initial WAP architecture. (8)
- b) Explain the architecture of Wireless application protocol also wireless transport layer security? (8)

OR

5. a) What is common synchronization, framework useful? What problems remain? (8)
- b) Describe the file system which support for mobility in wireless communication? (8)