7E 4238

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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)**

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)