Code No: L0423 **R07** Set No. 1

IV B.Tech. II Semester Regular Examinations, April/May 2013
WIRELESS COMMUNICATIONS AND NETWORKS
(Common to Electronics & Communication Engineering and Electronics and Computer Engineering)

Time: 3 Hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks
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1. a) Distinguish between SDMA and FDMA with neat sketches
   b) What do you know about packet radio? Give details

2. a) Describe traffic routing and explain with examples.
   b) Discuss about the first generation cellular radio network with a neat diagram.

3. a) What is Common channel signaling and Explain about it.
   b) Compare ISDN and BISDN in detail.

4. a) Discuss about mobile IP and its operation.
   b) Explain about Wireless datagram protocol and its applications

5. a) Explain IEEE 802 protocol architecture and its limitations.
   b) Explain in detail about Spread spectrum LAN and its applications.

6. a) Explain about logical link control and adaptation protocol.
   b) What are the similarities between frequency hopping and TDMA?

7. a) What is GPRS? How it works? Give applications.
   b) What is a radio wave? Explain all the details of radio wavepropagation

8. a) What is HiperLan. Compare different LAN structures and list out their applications.
   b) What are the purposes of using RTS/CTS in CSMA/CA?

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Set No. 2

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Time: 3 Hours   **Max Marks: 80**

Answer any FIVE Questions
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****

1. a) Distinguish between CSMA protocols and Reservation protocols
   b) Compare FDMA, TDMA and CDMA in detail.

2. a) Explain how wireless telephony is developed and its applications.
   b) What are the optical properties of radio waves? Explain.

3. a) Discuss about RMD and SS7. List out salient features
   b) Discuss about ISDN and BISDN. List out important differences.

4. a) Write about WAP architecture and explain in detail.
   b) What are merits/demerits of CSMA/CA with RTS/CTS protocols?

5. a) Discuss about different controls and layers of 802.11…….
   b) Compare Infra red LAN and Narrow bank Microwave LAN.

6. a) What do you understand about links manager specifications?
   b) What is Bluetooth? Give overview and its applications.

7. a) What do you mean by SMS? How it works in GSM.
   b) Explain in detail about mobile application protocol and give an example.

8. a) Explain about adhoc networking and its applications.
   b) List out merits/demerits of persistent and non-persistent CSMA protocols.

Code No: L0423　　**R07**　　Set No. 3

IV B.Tech. II Semester Regular Examinations, April/May 2013
WIRELESS COMMUNICATIONS AND NETWORKS
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Time: 3 Hours　　　　　　　　　　　　　　　　　　Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. a) Distinguish the features between TDMA and SDMA
   b) Distinguish between Packet radio protocols, and CSMA protocols,

2. a) Compare different applications with wired and wireless telephone networks.
   b) What are the differences in channel allocation problems in FDMA/TDMA based systems versus CDMA-based systems-Explain clearly.

3. a) Explain about signaling traffic in SS7
   b) Give details about CDPD, ARDIS and list out merits and demerits.

4. a) What is tunneling? Explain in detail by an example/application.
   b) Explain about WML scripts with examples.

5. a) Discuss about IEEE802 architecture and services
   b) Why is the near-far problem present in CDMA and not in FDMA? Clarify in detail.

6. a) What are the specifications for Radio band and base band? Give details and their applicability.
   b) Compare Hyper lan2 and Bluetooth by an application/example.

7. a) Distinguish GPRS and CDPD networks with an application.
   b) Why protocols are required for mobile applications? Give details.

8. a) Explain about wireless ATM in detail.
   b) List out differences between Ricochet solution and IEEE 802.16.

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Set No. 4

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Time: 3 Hours   **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks
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1. a) Explain in detail about TDMA and FDMA with an example.
   b) Explain spread spectrum techniques and multiple access techniques.

2. a) Explain the basic differences between wireless telephony and basic fixed telephone networks..
   b) What is the reason behind using different slot sizes in Bluetooth? Explain clearly.

3. a) Give details about ATM and its functioning.
   b) Give details of AMPS and their operational features.

4. a) Explain WAP service and WAP session protocol clearly.
   b) Discuss about wireless transaction in detail.

5. a) What is LAN? Discuss about different options available.
   b) Draw the layout of GSM and explain in detail.

6. a) What is WLL? Explain in detail.
   b) Discuss about functional planes and authentication process involved with GSM.

7. a) What is GSM? What are different services available in GSM.
   b) Explain about CDPD network with examples.

8. a) What is WPAN? Explain in detail.
   b) List out characteristics of MANETs.