Code: 9A04806

R09

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations, July 2013
WIRELESS COMMUNICATIONS AND NETWORKS
(Common to ECE & ECC)

Time: 3 hours

Max Marks: 70

Answer any FIVE questions
All questions carry equal marks

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1 (a) Explain the different variations of the CSMA protocol.
   (b) If a US AMPS cellular operator is allocated 12.5 MHz for each simplex band as if B_t is 12.5 MHz, B_{guard} is 10 KHz, and B_c is 30 KHz. Find the number of channels available is an FDMA system.

2 (a) Discuss the first and second generation wireless networks.
   (b) Differentiate connection oriented and connectionless services.

3 (a) List the link layer characteristics for CDPD.
   (b) With a neat diagram explain the SS7 protocol architecture.

4 (a) With a neat diagram explain the different operations involved when IP datagrams are exchanged over a connection between the mobile node and another host.
   (b) When would each of the three WTP transaction classes be used?

5 (a) What are some key advantages of infra red LANs?
   (b) With a neat diagram explain IEEE 802.11 frame structure.

6 (a) Explain the different applications areas supported by Bluetooth.
   (b) List and briefly explain L2 CAP logical channels.

7 (a) With a neat diagram explain GPRS technique.
   (b) Discuss short messaging service in GSM.

8 (a) Explain the different layers of ATM.
   (b) Differentiate adhoc network with wireless LAN.

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