M.E. DEGREE EXAMINATIONS: MAY / JUNE 2010

Second Semester

COMMUNICATION SYSTEMS

COM504: Mobile Communication Networks

Time: Three Hours   **Maximum Marks: 100**

Answer All the Questions:-

PART A (10 x 2 = 20 Marks)

1. What is the frequency range used in forward &reverse link in AMPS?

2. What is Intersystem Handoffs?

3. Give the specifications of EDGE standard

4. What are the aspects of Power management?

5. What are the ratio interfaces in GSM?

6. Define network access point.

7. Give the salient characteristics of Ad Hoc networks.

8. Give the goals of Hiper LAN.

9. What are the different types of active attacks?

10. What is Denial of Service?.

PART B (5 x 16 = 80 Marks)

11. a) (i) Compare the features of FDMA, TDMA & CDMA.   (6)

   (ii) What are the methods of increasing channel capacity in cellular system?   (10)

(OR)

 b) (i) What are the important issues involved in network planning   (6)

   (ii) Discuss the network and mobility management procedures.   (10)

12. a) (i) Describe the parameters of Mobile Multipath Channels.   (8)

   (ii) Describe the GPRS Architecture and explain.   (8)

(OR)

 b) Derive the path loss equation for 2-ray ground reflection model.

13. a) Explain the Mobile Network Architecture with an example.

(OR)

  b) (i) Explain the SS7 in detail (8)

    (ii) Explain the user and control plane protocols (8)

14. a) (i) Draw and explain the Reference Architecture. Terminologies and Topologies for

    the IEEE 802.11 (10)

    (ii) List the requirements in the IEEE 802.11. (6)

(OR)

  b) (i) Explain the ad hoc network features in detail. (12)

    (ii) Write the salient features of wireless sensor networks. (4)

15. a) Describe the architecture of sensors networks.

(OR)

  b) Explain MAC protocols used in sensor networks.

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