AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING.

YEAR/SEM/SEC:IV/VIII/A&B TOTAL MARKS: 100 DURATION : THREE HOURS

MODEL QUESTION PAPER , SET-1

PART-A (2*10=20)

1. Compute the maximum throughput of a pure ALOHA networking with a large number ofusers and transmission rate of 1 Mbps?
2. Find out the capacity of a single IS-95 cell that uses QPSK modulation and convolutional coding 3 db<Sr< 9 db, and bandwidth of the channel is 1.25 MHz.
3. List the five major challenges for implementation of Wireless LANs that existed from the beginning of this industry.
4. What is meant by capacity on-demand principle in GPRS networks?
5. What are the MAC services of IEEE 802.11 that are not provided in traditional LAN 802.3?
6. Draw the MAC layer frame format of IEEE 802.11.
7. Define LEAP Protocol and LEACH protocol
8. Compare hierarchical routing and flat routing in sensor networks.
9. Mention the service provided by L2CAP Bluetooth networks.
10. List the two major states in the operation of Bluetooth.

PART-B (16*5=80)

11.Explain in detail the methods of data services get integrated with Voice Oriented Networks (16)

(OR)

12.Explain in detail the forward and reverse channels in W-CDMA and CDMA 2000,and also explain about the handoff and power control mechanisms.(16)

13. Explain in detail the methods of data services get integrated with Voice Oriented Networks(16)

(OR)

14.(i) Explain the three different functions that are used for the operational differences for MAC layer. (8)

(ii) Explain in detail the architecture of the 2G GSM system. (8)

15.Why IEEE 802.11 standard has two divisions in the MAC layer? Explain in detail about the MAC sub layer (16).

(OR)

16. Explain the architecture and reference model of HIPERLAN- 2 in detail.

17. (i) Explain the physical and MAC layer details of Wi Max in detail (8)

(ii) Explain the architecture of IEEE 802.11 (8).

(OR)

18. List the challenges involved in Adhoc network architectureWhat was the mission of the IAPP group?

19. Explain the need for demand based routing protocol for wireless sensor networks. Explain the different types of wireless sensor networks in detail. (16)

(OR)

20. (i) Explain the source initiated on- demand routing protocols in ad- hoc networks in detail.(8)

(ii) Explain any to table driven routing protocols in ad-hoc networks. (8)