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**First Semester M.Tech Degree Examination, Dec.2014/Jan.2015**  
**Wireless Adhoc Networks**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions.**

- 1
  - a. Explain any eight issues of Adhoc wireless network. (04 Marks)
  - b. Explain Adhoc wireless Internet, with a neat schematic diagram. (06 Marks)
  - c. With frame format, explain HOP reservation multiple access protocol. (10 Marks)
- 2
  - a. Describe the temporally ordered routing algorithm (TORA) for adhoc networks along with its pros and cons. (10 Marks)
  - b. Explain the route establishment in DSDV with examples. (10 Marks)
- 3
  - a. Explain the design issues in multicast routing protocol. (05 Marks)
  - b. Explain the architecture reference model for multi cast routing protocol in wireless adhoc networks. (10 Marks)
  - c. What are the classifications of multicast routing protocol? (05 Marks)
- 4
  - a. Explain the issues and design goals of transport layer protocol for Adhoc wireless networks. (08 Marks)
  - b. Explain the key management in adhoc wireless networks. (08 Marks)
  - c. Define active and passive attacks. (04 Marks)
- 5
  - a. What are the characteristics of the energy management in wireless Adhoc networks? (10 Marks)
  - b. Explain the battery scheduling techniques. (06 Marks)
  - c. Explain the Lazy packet scheduling scheme. (04 Marks)
- 6
  - a. Describe the working mechanism of MAC protocol using directional antennas. Also in brief explain one protocol in this category. (10 Marks)
  - b. Explain the five phase reservation protocol (FPRP) with frame work. (05 Marks)
  - c. Define Soft Reservation. Explain soft reservation multiple access with priority assignment using frame structure. (05 Marks)
- 7
  - a. Discuss the important routing metrics that would help in attaining power efficiency. (06 Marks)
  - b. List advantages and disadvantages of SPLIT TCP. (04 Marks)
  - c. Explain the Flow oriented routing protocol. (10 Marks)
- 8
  - a. Explain the ticket based QOS routing protocol. (06 Marks)
  - b. Explain the cluster TDMA protocol for MAC layer QOS. (08 Marks)
  - c. Write a short note on :
    - i) Denial of service
    - ii) Impersonation. (06 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
 2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.

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