10CS/IS841

Eighth Semester B.E. Degree Examination, June/July 2016
Ad-Hoc Networks

Time: 3 hrs.   Max. Marks:100

**Note: *Answer any FIVE full questions, selecting
atleast TWO questions from each part.***

PART – A

1   a. Write any eight differences between cellular networks and Ad-hoc wireless networks.
(10 Marks)
    b. Explain the major issues to be considered in designing a MAC protocol for Ad-hoc wireless networks.
(10 Marks)

2   a. Explain hidden and exposed terminal problems with a neat diagram.   **(05 Marks)**
    b. Explain the packet exchange mechanism in MACAW protocol with a neat diagram.
(06 Marks)
    c. Explain collision avoidance time allocation protocol frame format with a diagram.
(09 Marks)

3   a. Explain MAC protocol using directional antennas.   **(06 Marks)**
    b. Explain interleaved carrier–sense multiple access protocol in brief.   **(07 Marks)**
    c. Explain the operation of multichannel MAC protocol with a neat diagram. **(07 Marks)**

4   a. Write the classification of routing protocol based on the routing information update mechanism.
(03 Marks)
    b. Explain DSDV routing protocol with an example.   **(09 Marks)**
    c. Explain AODV protocol.   **(08 Marks)**

PART – B

5   a. Explain zone routing protocol.   **(07 Marks)**
    b. Explain Fishey state routing protocol with an example.   **(13 Marks)**

6   a. Why does TCP not perform well in Ad-hoc wireless networks?   **(10 Marks)**
    b. Explain Ad-hoc TCP, with state diagram for ATCP sender.   **(10 Marks)**

7   a. Explain in brief various routing attacks.   **(05 Marks)**
    b. Briefly explain requirements for a secure routing protocol.   **(04 Marks)**
    c. Explain two major kinds cryptographic algorithms.   **(11 Marks)**

8   a. Briefly explain the characteristics that affects QoS provisioning in Ad-hoc wireless networks.
(07 Marks)
    b. Explain Location and delay predictions with respect to predictive location based QoS routing protocol.
(13 Marks)

* * * * *