R09

Code No: **D5507**

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech II - Semester Examinations, March/April 2011
ADHOC WIRELESS AND SENSOR NETWORKS
(EMBEDDED SYSTEMS)

Time: 3hours   Max. Marks: 60

Answer any five questions
All questions carry equal marks
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1. a)   Describe the services provided by Bluetooth.
   b)   What are the major issues and challenges that need to be considered for designing
         adhoc wireless system?   [6+6]

2. a)   Describe the design goals of a MAC Protocols for ad hoc wireless networks.
   b)   Explain the role of directional antennas in MAC protocols.   [6+6]

3. a)   List out various issues in designing a routing protocol for Ad hoc wireless
         networks.
   b)   Describe about various types of hybrid routing protocols.   [6+6]

4. a)   Explain briefly about QoS frame works.
   b)   Discuss about classifications of ad hoc wireless networks.   [6+6]

5. a)   Explain the operation of security aware adhoc routing (SAR) protocol.
   b)   Compare fixed allocation, demand based and contention- based MAC protocols
         for sensor networks.   [6+6]

6. a)   Discuss about quality of sensor network.
   b)   Explain the classifications of MAC Protocols.   [6+6]

7. a)   Draw and explain sensor network architecture.
   b)   Explain transmission power management schemes.   [6+6]

8.   Write a brief note on:
          i) WAP
          ii) Contention based protocols.   [6+6]

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