R09

Code No: C2507

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I - Semester Examinations March/April-2011
ADHOC AND SENSOR NETWORKS
(SOFTWARE ENGINEERING)

Time: 3hours   **Max.Marks:60**

Answer any five questions
All questions carry equal marks
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1. a) Explain the characteristics of Mobile Ad hoc Networks (MANETs).
    b) List and brief the various applications of MANETs.   [12]

2. a) Give the taxonomy of MANET routing algorithms.
    b) Explain and illustrate *any one* Topology-based Routing algorithm. [12]

3. a) Distinguish the terminology – Broadcasting, Multicasting, and Unicasting.
    b) Illustrate any one Multicasting Routing Protocol.   [12]

4. Illustrate the routing algorithm for WSN - *Directed Diffusion*.   [12]

5. a) Mention *any four* applications of Wireless Sensor Networks (WSN).
    b) Draw the architectural diagram (only) of the Great Duck Island application.
                                                                          [12]

6. Explain the Diffie–Hellman key agreement protocol in detail.   [12]

7. What is Tiny OS? Explain its significance and salient features w. r. t WSN.
                                                                          [12]

8. Write short notes on *any two* of the following:
    a. The MAC Protocol for WSN – *SMACS*
    b. Functional components diagram of the WSN
    c. Clustering in WSN.   [12]

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