

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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