

R09

Code No: 09A80505

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B.Tech IV Year II Semester Examinations, May – 2013

Adhoc and Sensor Networks

(Common to CSE, IT)

Time : 3 hours

Max Marks: 75

**Answer any five questions
All questions carry equal marks**

- 1.a) Describe the applications of a MANET.
b) Explain the challenges that need to be addressed at Transport, Network and MAC layer of a MANET. [8+7]
- 2.a) Describe the working of signal stability based routing protocol for MANETS.
b) Differentiate various routing approaches for MANETS. [10+5]
- 3.a) Explain the concept of Flooding – Generated broadcast Storm in an adhoc network.
b) What are the issues that need to be addressed to provide multicasting in a MANET?
c) What do mean by Geocast routing? [7+4+4]
- 4.a) Discuss the impact of lower layers on TCP in a MANET.
b) Describe the challenges in designing a wireless sensor network. [7+8]
- 5.a) Explain any two important applications of a Wireless Sensor Network.
b) Describe the working of multipath based routing in a sensor network. [8+7]
- 6.a) Explain N-party Diffie-Hellman Key Agreement scheme for Adhoc Networks.
b) What is a Wormhole attack?
c) List the problems that affect secure adhoc routing. [8+4+3]
- 7.a) Describe a typical Intrusion detection System architecture for Adhoc Networks.
b) Explain the challenges in programming a wireless sensor network. [8+7]
8. Write short notes on:
a) TinyOS features
b) Features of NS-2 with sensor network extension
c) Sensing and communication range of wireless sensors. [15]

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