Code: 9A05807

R09

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations, July 2013
WIRELESS SENSOR NETWORKS
(Common to CSE, IT and CSSE)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1 (a) With a neat diagram, explain the functions of each layer of Bluetooth.
   (b) State the differences between infrastructure and adhoc networks.

2 (a) Elaborate on hidden and exposed terminal problem in wireless environment.
   (b) Explain the counter measures for interference using SDMA and FDMA multiplexing techniques.

3 Discuss the importance of location management and handover management in mobile IP.

4 How indirect TCP, snooping TCP and mobile TCP isolate the problems on the wireless link? Also mention the drawbacks of these solutions.

5 (a) Discuss the issues and challenges in the design of a sensor network.
   (b) List the scenarios where sensor networks can be used.

6 (a) Explain about multipath based and query based routing protocols for wireless sensor networks.
   (b) Discuss about high-level application layer support for wireless sensor networks.

7 Explain about various components of sensor network hardware.

8 (a) Distinguish between cycle driven and discrete event simulators.
   (b) Describe the features of Tinyos.

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