Roll No. ⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜⬜   Total No. of Pages : 01

Total No. of Questions : 08

M.Tech.(ECE) (2018 Batch) (Sem.–1)
WIRELESS SENSOR NETWORKS
Subject Code : MTEC-PE1X-18-1
Paper ID : [75174]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. Attempt any FIVE questions out of EIGHT questions.
2. Each question carries TWELVE marks.

Q1 What is sensor network? Draw the block diagram of sensor network architecture and briefly explain each block.

Q2 What is wireless sensor mote? Compare following sensor mote on the basis of their application, technical specification, size, battery life, mechanical robustness : *Mica2 Motes, TelosB Motes and cricket motes*.

Q3. Explain sensor deployment mechanism and discuss following issues: Coverage issues, sensor grid and sensor web.

Q4. What do you understand by localization and positioning of sensor nodes? What are the major properties of localization and positioning procedures?

Q5. Explain Trilateration method to determine a node's position. Compare this method with Scene analysis and Proximity method.

Q6. Explain the Geographical Energy Aware Routing (GEAR) protocol in detail. What is two-tier data dissemination process?

Q7. Explain how low duty cycle protocols of sensor networks operate. Also describe the address and name management system of WSN.

Q8. Briefly explain about the sensor network programming challenges. Compare C and nesC programming tools for WSN simulation.