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

M.Code : 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.

1. a) Compare sensor networks with adhoc networks.
   b) Write a short note on single node architecture with its applications.
2. a) Explain one case study for IEEE 802.15.4 low rate WPAIM standard.
   b) Differentiate between single-hop and multi-hop networks with neat diagrams.
3. a) Explain the requirements and design constraints for wireless MAC and network layer protocols.
   b) Discuss various programming challenges in wireless sensor networks (WSN).
4. Explain in detail about nesC language constructs and restrictions to implement TinyOS and RetOS components and applications.
5. a) How energy preservation is performed in wireless sensor networks.
   b) Discuss medium access control and MAC layer issues of Bluetooth in detail.
6. a) Describe in detail about security and fault tolerance in wireless sensor networks.
   b) Discuss cluster based protocols.
7. Discuss the simulation and experimental performance of open source (ns-2) and commercial (QualNet and Opnet) platforms in wireless sensor networks.
8. a) Discuss different database management systems.
   b) Discuss data dissemination and gathering in sensor networks.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.