Roll No. ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚   Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(ECE) (2012 to 2017 E-III) (Sem.–7)
WIRELESS SENSOR NETWORK
Subject Code : BTEC-920
M.Code : 71925

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTION TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.**

SECTION-A

1) **Answer briefly :**

   a. Outline the function performed by a node in a wireless sensor network.

   b. How CSMA based MAC protocol for wireless sensor network work?

   c. Why wireless sensor networks need localization protocols?

   d. What is data dissemination in a wireless sensor network?

   e. What is meant by energy scavenging in wireless sensor network?

   f. What is meant by range assignment problem?

   g. State the difference between cycle driven simulation and discrete event simulation.

   h. What is the need of clustering nodes in sensor networks?

   i. What is GEAR?

   j. Define figure of merit.

SECTION-B

2)   Outline the issues related to routing in wireless sensor networks.

3)   Illustrate and describe the architecture of sensor node hardware components.

4)   Explain the factors playing major role in optimizing a wireless sensor network.

5)   Explain state centric design framework for embedded systems.

6)   Discuss the principle of Mediation device protocol with a neat sketch.

SECTION-C

7)   What is quality of Service (QOS)? Discuss QOS in wireless sensor networks.

8)   Describe in detail about the Geographic routing with and without positions.

9)   Discuss the potential applications of wireless sensor network.

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.