

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER-1 (NEW) EXAMINATION – WINTER 2018

Subject Code: 3710511**Date: 03/01/2019****Subject Name: Wireless Sensor Networks****Time: 02:30 PM To 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full mark.

- Q.1 (a) Write short note on Wireless Sensor Network applications. 07
(b) Compare and contrast Mica2 and MicaZ sensors. 07
- Q.2 (a) Compare WSN and Adhoc Network. 07
(b) Draw and explain Hardware structure of sensor node. 07
OR
(b) Draw and explain Software structure of sensor node. 07
- Q.3 (a) Write short note on operating system with example used for WSN. 07
(b) Explain various sensor nodes deployment mechanism in WSN. 07
OR
- Q.3 (a) Write short note on programming tool with example used for WSN. 07
(b) Brief on importance of energy efficiency and ways to achieve it in WSN. 07
- Q.4 (a) Write short note on operation of Bluetooth protocol used for WSN. 07
(b) What is routing protocol? Explain two routing protocols used for data routing in WSN. 07
OR
- Q.4 (a) Write short note on operation of standard 802.15.4 used for WSN. 07
(b) Explain data dissemination mechanism in WSN. 07
- Q.5 (a) What is localization in WSN? Write issues related to localization. 07
(b) How database management system works in WSN? 07
OR
- Q.5 (a) Write short note and query processing mechanism in WSN. 07
(b) Explain various operational challenges in WSN. 07
