Roll No. ....

24447

B. Tech. 7th Semester (ECE)
Examination – December, 2016

WIRELESS SENSOR NETWORK
Paper : ECE-411-F

Time : Three Hours]   *[Maximum Marks : 100*

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Question No. 1 is *compulsory*. Attempt *one* question from each Unit.

1. (a) What is a wireless sensor network ?   4

   (b) What are the hardware components of a wireless sensor network ?   4

   (c) What are the requirements of a MAC protocols ? 4

   (d) What is wake up radio concept ?   4

   (e) What is clustering ?   4

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UNIT – I

2. What are the challenges and the required mechanisms of a Wireless Sensor network ?   20

3. What are the various applications of wireless sensor networks and explain any two with an example each.

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UNIT – II

4. Explain in detail the hardware components used in WSN architecture.   20

5. Explain in detail about the Gateway concepts.   20

UNIT – III

6. Explain the design approaches and performance of S-MAC protocol.   20

7. Discuss in detail the Transceiver characteristics and structure.   20

UNIT – IV

8. Explain in detail about different topology control mechanisms.   20

9. Explain about various clustering mechanisms in WSN. Also explain in detail about the sensor tasking and control.   20

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