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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
MODEL EXAMINATION**

SUBJECT CODE: EC2051
SUBJECT NAME: WIRELESS SENSOR NETWORKS   **MARKS:100**

PART-A   **(10*2=20)**

1. What is a Wireless Sensor Network?
2. What are the characteristic requirements of Wireless sensor network?
3. What are the hardware components of a Wireless sensor network?
4. What are the various operating modes of a transceiver?
5. What are the requirements of a MAC protocol?
6. What is wake up radio concept?
7. Discuss the parameters defined by homogenous topology control?
8. What are the various services offered by the Localisation?
9. What is Berkeley mote?
10. Classify the Sensor node hardware

PART-B   **(16*5=80)**

11. a)What are the challenges and the required mechanisms of a Wireless Sensor network

OR

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

12. a) With a neat diagram, Explain the sensor network architecture (16)

OR

b) Explain in detail about the Gateway concepts (16)

13 a) Explain in detail about the schedule based protocol.

OR

b) i) Explain energy efficient routing protocol   (8)
   ii) Explain in detail about the geo-cast routing protocol (8)

14 a) Explain in detail about the different localization mechanisms (16)

OR

b) Explain about time synchronization mechanisms in WSN

15 a) Briefly explain about the sensor network programming challenges16)

OR

b) Explain in detail the node level software platform (16)