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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
MODEL EXAMINATION
QUESTION PAPER-3**

SUBJECT CODE: EC2051

SUBJECT NAME: WIRELESS SENSOR NETWORKS

MARKS:100

PART-A

(10*2=20)

1. What are the enabling technologies for sensor networks?
2. What is collaborative in- network processing
3. What is Single Hop and Multiple Hop?
4. What are the different types of mobility?
5. Define dynamic modulation scaling
6. What is energy efficient routing?
7. What are the various time synchronization algorithms?
8. What are the various roles of the sensor?
9. What are the different types of motes?
10. What are the node level simulators?

PART-B

(16*5=80)

- 11 a) (i) Explain how the sensor networks are deployed for various applications. (8)
(ii) Discuss on Energy Scavenging. (8)
OR
b) What are the various challenges of WSN? Compare MANET and WSN.
11. a) i) Explain the optimization goals and figure of merit of WSN.(8)
ii) Write short notes on operating system and execution environment(8)
OR
b) Write short notes on tinyos and nesc.(16)
- 13.a) (i) Explain any two low duty cycle protocols. (8)
(ii) Write short notes on address and name management of WSN (8)
OR
b) (i) Explain low energy adaptive protocol. (8)
(ii) Discuss the SMAC and mediation device protocol (8)
- 14 a)(i) Explain the various algorithms in topology control.(10)
(ii) Explain single hop localization.(6)
OR
b) Explain Task driven sensing and Information based sensing.(16)
- 15 a) i) Write notes on node level simulators.(8)
ii) State centric program (8)
OR
b) (i) Explain in detail the system architecture of a canonical WS node.(8)
(ii) Explain SOC- system on chip nodes.(8)