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## M.Tech. (CSE Engg.)E-I (2018 Batch) (Sem.-1) WIRELESS SENSOR NETWORKS

Subject Code: MTCS-106-18 M.Code: 75156

Time: 3 Hrs. Max. Marks: 60

## **INSTRUCTIONS TO CANDIDATES:**

- Attempt any FIVE questions out of EIGHT questions.
- Each question carries TWELVE marks.
  - 1. a. General MAC protocols can result in a waste of energy in WSNs. How?
    - b. Classify the routing protocols for Wireless Sensor Networks.
  - 2. Answer the following:
    - a. Different applications of sensor Networks.
    - b. Explain overall architecture of Wireless Sensor Networks.
  - Explain basic hardware and software subsystems of sensors. 3.
  - 4 Answer the following:
    - a. How are Wireless Sensor Networks different from traditional networks?
    - b. Difference between single hop and multiple hop in WSNs.
  - What are the characteristics of Operating Systems in Wireless Sensor Networks? Explain 5. different operating Systems used in WSNs.
- Explain the basic architecture of wireless sensor node with the help of a block diagram. 6.
- 7 What are the possible attacks in WSNs? What are the countermeasures?
- 8. Explain the following network models of WSNs:
  - a. MAC Model
  - b. Routing Model

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.

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