



SEVENTH SEMESTER B.TECH. (E & C) DEGREE END SEMESTER EXAMINATION

NOVEMBER 2018

SUBJECT: WIRELESS SENSOR NETWORKS (ECE - 4037)

TIME: 3 HOURS

MAX. MARKS: 50

Instructions to candidates

- Answer **ALL** questions.
- Missing data may be suitably assumed.

- 1A. Discuss the issues to be considered in designing a MAC protocol for Ad hoc wireless networks.
- 1B. Mention any SIX differences between Cellular Networks and Ad hoc Wireless Networks.
- 1C. Describe any SIX major issues in Ad hoc wireless internet. (4+3+3)
- 2A. Describe any EIGHT deployment considerations of an Ad hoc wireless network.
- 2B. Explain any TWO techniques that provide reliable data transmissions at Transport layer in WSNs.
- 2C. Discuss the mobility models that are considered in simulating Ad hoc wireless networks.. (4+3+3)
- 3A. Discuss any FOUR data Dissemination techniques with suitable examples.
- 3B. Mention any THREE protocols that addresses the security issues in WSNs. Explain the working of each protocol.
- 3C. Explain the issues in Designing a Routing Protocol for Ad hoc Wireless Networks. (4+3+3)
- 4A. Explain the functioning of DSR protocol with suitable examples. Also discuss the optimization techniques, advantages and disadvantages of DSR protocol.
- 4B. Write about the design choices for providing QoS support in Ad hoc wireless networks.
- 4C. Write about any THREE QoS Routing protocols for ad hoc wireless networks. (4+3+3)
- 5A. Explain the Software Development Infrastructure for Sensor Networks.
- 5B. Discuss any THREE techniques of transmission power management schemes for effective utilization of energy in Ad hoc wireless networks.
- 5C. Discuss the different categories of sensor hardware for WSNs. (4+3+3)