CC821

M. Tech. EXAMINATION, 2021

(Third Semester)

(B Scheme) (Re-appear)

(ECE)

MTEI5605B

WIRELESS SENSOR NETWORK

Time : 2½ *Hours*]   [*Maximum Marks :* 75

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

Note : Attempt *Four* questions in all. All questions carry equal marks.

1. (a) Explain various Performance Metrices for Wireless Sensor Networks (WSNs).

    (b) Explain major security related challenges for WSNs. How are these challenges tackled ?

2. (a) Discuss various emerging technologies for WSNs.

    (b) Explain the programming challenges for WSNs.

3. (a) What are various modes of operation of Wireless Sensor Node ?

    (b) What are various optimization goals in WSNs ?

4. (a) Give mathematical modeling of FOM for WSNs.

    (b) Model and discuss energy consumption of different components of Wireless Sensor Node.

5. (a) What are various MAC protocols for WSNs ?

    (b) Discuss concepts of position based routing protocols.

6. (a) Discuss the implementation of S-MAC protocal in WSNs.

    (b) Briefly explain Geographic routing in WSWs.

7. Write short notes on the following :

    (a) Node level simulators

    (b) State-centric programming.

8. (a) Explain various times synchronization techniques in WSNs.

    (b) Discuss the advantages of localization in WSNs.