C028635(028)

B. Tech. (Sixth Semester) Examination, April-May 2022

(AICTE-Scheme)

(ET & T. Engg. Branch)

WIRELESS SENSOR NETWORKS

Time Allowed : Three hours

Maximum Marks : 100

Minimum Pass Marks : 35

Note : *All questions are compulsory. Part (a) of each question is compulsory and answer any two parts from (b), (c) & (d) of each question. Part (a) carries 4 marks and parts (b), (c) & (d) carries 8 marks each.*

Unit-I

1. (a) What do you understand by localization? Define it.

   (b) Draw the block diagram of wireless sensor node. Explain in detail.

   (c) What do you understand by three domain network in network deployment? Explain in detail.

(d) What do you understand by Graded precision localization? Explain in detail.

Unit-II

2. (a) Define the term time synchronization.

(b) Explain fine grained network time synchronization using RBS.

(c) Explain GPS based localization in detail.

(d) Explain clock & communication delay in detail.

Unit-III

3. (a) Define the term topology.

(b) Draw and explain construction topology for connectivity.

(c) Draw and explain Adaptive Self Configuration Sensor Network Topology Control (ASCENT).

(d) What do you understnad by Lightweight Deployment Aware Scheduling (LDAS) explain briefly.

Unit-IV

4. (a) Define the term estimation.

(b) Why congestion occurred. How it will detected define it.

(c) Explain Congestion Detection & Avoidance (CODA). Algorithm for multiple class of traffic sensor network.

(d) Draw architecture of outlier detection techniques for wireless sensor network and explain statistical based approaches.

Unit-V

5. (a) Define term data centric network.

(b) Explain direct diffusion data-centric routing in detail.

(c) Explain leach protocol in detail.

(d) What do you understand by querying? Explain in detail.