Practice questions for WSN Branch: CCE and

CSE Semester:7th

Year: 2024

1. LEACH protocol
2. TRAMA protocol
3. IEEE 802.15.4
4. Code for ARQ and FEC
5. Types of unicast routing
6. Types of multicast routing
7. Block packet delivery mechanism
8. Link quality estimation
9. Naming and addressing
10. Trilateration, triangulation, multilateration techniques for position estimation of a sensor node.
11. Time synchronization and node clocks
12. Functionality of LTS and RBS for both peer-to-peer and network-based time synchronization.
13. Techniques for power control in flat network-based topology control.
14. Content-based addressing through attribute value operation.
15. Repeated interaction problem in data centric routing and its solution through directed diffusion.
16. Position estimation techniques and calculation for the sensor node position through beacon nodes.
17. Single-hop localization techniques
18. Positioning in multi-hop environments
19. Data aggregation operations and broadcasting of aggregated value.
20. Topology control through hierarchical methods.

21. Discuss the following for WSN.
    a. Bluetooth vs IEEE 802.15.4
    b. IEEE 802.11 vs IEEE 802.15.4
    c. IEEE 802.15.4 vs ZigBee
    d. FEC vs ARQ
    e. Passive link quality estimation

f. Code rate vs coding gain
g. Link quality estimation
h. Flow control vs congestion control
i. Boolean sensing vs general sensing model
j. Single packet vs block delivery
k. Reinform vs HHBA protocol
l. Open loop backpressure mechanism vs closed loop regulation mechanism
m. Gossiping vs agent-based unicast
n. Unicast vs multi cast routing
o. Interleaving operation
p. Framing vs link management
q. Positive vs negative acknowledgement
r. Interest message vs data message
s. Content-based vs geographic addressing
t. Anchor node vs normal sensor node
u. Congestion control
v. RSSI vs TOA vs TDOA
w. Angle of arrival
x. Trilateration vs triangulation
y. Trilateration vs multilateration
z. RMST vs CODA
aa. LTS vs RBS
bb. Apriori time synchronization vs postfacto synchronization
cc. Position-based routing vs geocasting
dd. Congestion control and avoidance
ee. Interest message vs data message
ff. External vs internal time synchronization
gg. Peer-to-peer synchronization vs networkwide synchronization
hh. Directed diffusion and diffusion reinforcement