

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE) (Sem-7,8)

ADHOC AND WIRELESS SENSOR NETWORKS

Subject Code : BTCS-716-18

M.Code : 90507

Date of Examination : 30-05-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A** is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION-A

1. Write briefly :

- a) Define Wireless sensor network.
- b) What is S-MAC protocol?
- c) Define proactive routing.
- d) What is contention-based protocol?
- e) List the classification of MAC .protocol
- f) List the services provided by IEEE 802.15.4.
- g) Define hybrid routing.
- h) What is flooding attack?
- i) What is tampering black hole attack?
- j) How is secure routing done in wireless channel?

SECTION-B

2. Explain the architecture of wireless sensor networks.
3. What are the design goals of a MAC protocol for Ad Hoc wireless networks?
4. How duty cycle approach is used to transit between listen state and sleep state in S-MAC protocol?
5. Explain node architecture in detail.
6. Why secure routing protocols are needed?

SECTION-C

7. **Write a note on**
 - a) DSDV
 - b) AODV
8. Explain TCP over Ad hoc wireless.
9. Explain key distribution and management scenario for sensor network security.

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.