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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 : 06-05-2024

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 Ad-hoc network.
- b) What is S-MAC protocol?
- c) Write down any four issues faced by routing protocols in transport layer.
- d) What is contention-based protocol?
- e) What is scalability?
- f) Write down the issues of designing a MAC protocol for Ad-hoc networks.
- g) List the applications of wireless sensor network.
- h) List the components of sensor node.
- i) List the network security requirement in Ad-hoc wireless network.
- j) Why cryptographic approach is not suitable for wireless sensor network?

## SECTION-B

2. What are the design challenges faced in Ad Hoc Network. Discuss each in detail.
3. Write a short note on PAMAS schedule-based LEACH protocol.
4. Explain in detail the wakeup concept.
5. Write in detail about the IEEE 802.15.4.
6. What are network security challenges in security provision network?

## SECTION-C

7. Write a note on :
  - a) DSDV
  - b) AODV
8. Explain the energy consumption of sensor nodes for wireless sensor network.
9. Explain in detail the concept of layer wise attack in wireless sensor networks.

**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.**