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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 : BTCS716-18

M.Code : 90507

Date of Examination : 16-12-2023

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) Outline the hidden vs exposed terminal problem in ad-hoc networks.
- b) State any two applications of ad-hoc networks.
- c) What is security provisioning?
- d) Name the basic components of the sensor node.
- e) Why wireless sensor networks need localization protocols?
- f) What is data dissemination in wireless sensor networks?
- g) What is possible solution for jamming?
- h) Define a black hole attack.
- i) What is key management?
- j) What is flooding attack?

SECTION-B

2. What is energy efficient routing? Present an outline of energy efficient routing in wireless sensor networks.
3. What is routing protocol? Outline the issues in designing a routing protocol for ad-hoc wireless networks.
4. Explain the requirement of security in Ad-hoc Networks.
5. What is wireless sensor network? Elaborate the wireless sensor network architecture with diagram.
6. Outline the issues and challenges in security provisioning for wireless sensor networks.

SECTION-C

7. Classify the various routing protocols for Ad-hoc wireless networks and present an outline for the same.
8. Present an outline of SPINS, security protocol for sensor networks.
9. Outline the Low Energy Adaptive Clustering Hierarchy (LEACH) protocol for 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.