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Question Paper Code : 40383

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Seventh Semester

Computer Science and Engineering

CS 8088 – WIRELESS ADHOC AND SENSOR NETWORKS

(Common to : Computer and Communication Engineering/ Information Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define an Ad hoc sensor network.
2. What is routing?
3. Define Quality of service.
4. Write a note on TCP.
5. Name any two applications of wireless sensors networks.
6. Write a note on low duty cycle protocols.
7. What is contention? Give examples.
8. Name any two operating systems for wireless sensor networks.
9. What is marking?
10. Outline use of TESLA.

PART B — (5 × 13 = 65 marks)

11. (a) Present an outline of MAC layer protocols for wireless Ad hoc networks.

Or

- (b) Outline the design issues in adhoc network and outline the difference between proactive, reactive and hybrid routing protocols.

12. (a) Present outline of transport protocols for ad hoc networks.

Or

(b) Explain the network Layer QoS model for the ad hoc network with a diagram.

13. (a) Elaborate the sensor network architecture with a diagram.

Or

(b) Present on outline of Schedule based protocols and elaborate the Zigbee protocol architecture.

14. (a) Present on elaborate note on data centric and contention –based networking.

Or

(b) What is congestion? Outline in congestion control.

15. (a) Elaborate types of attacks wireless sensor networks mobile ad hoc and sensor networks with relevant examples.

Or

(b) (i) What is authentication? How symmetric cryptography works? Give example. (5)

(ii) Present an outline of security protocol for sensor networks. (8)

PART C — (1 × 15 = 15 marks)

16. (a) Consider a case study and explain how contention based protocol will be used and outline do we require wakeup concepts for the application.

Or

(b) Consider an application and explain the importance of security for that applications and outline the security features that need to be considered.
