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Question Paper Code: 39402

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2019

Elective

Electronics and Communication Engineering

01UEC902 - MOBILE AD-HOC NETWORKS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define ad Hoc networks.
2. State Nyquist rate.
3. Give the classifications of MAC protocol.
4. Write the frame format of 802.11.
5. Compare proactive and reactive routing protocols.
6. How does energy aware routing works?
7. Assume that the TCP sender experiences a timeout when the current congestion window size is 48 KB. Considering the MSS of 1KB, calculate the size of the congestion window for which the next three transmissions will be successful.
8. List the issues in designing transport layer protocol.
9. Give detail about cross layer optimization
10. List the factors that affect effective cross layer design.

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Differentiate between cellular network and Ad hoc network. (8)
(ii) Discuss the applications of mobile ad hoc networks and explain it. (8)

Or

- (b) Explain ad-hoc indoor mobility models in detail. (16)

12. (a) Explain the scheduling table update mechanism in distribute priority scheduling in detail. (16)

Or

- (b) Explain IEEE 802.11g standard in detail. (16)

13. (a) Classify and explain the routing protocols in Adhoc networks. (16)

Or

- (b) Explain multicast routing algorithm in detail. (16)

14. (a) (i) Explain the issues in designing a transport layer protocol for ad-hoc wireless networks. (8)

- (ii) Discuss why does TCP not perform well in ad-hoc wireless network? (8)

Or

- (b) List and brief various network and transport layer attacks in detail. (16)

15. (a) Explain integration of ad-hoc with mobile IP networks in detail. (16)

Or

- (b) How the cross layer feedback can be categorized? Explain in details with its advantages and disadvantages. _____ (16)