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10CS/IS841

Eighth Semester B.E. Degree Examination, June/July 2017

Adhoc Networks

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. Bring out the differences between cellular networks and adhoc networks. (08 Marks)
- b. Explain adhoc wireless internet with a neat schematic diagram. (06 Marks)
- c. List and explain different applications of adhoc wireless network. (06 Marks)
- 2 a. Discuss the issues in designing a MAC protocol for adhoc wireless network. (10 Marks)
- b. Explain the five phase reservation protocol in detail. (10 Marks)
- 3 a. Mention the factors to be considered while making scheduling decisions. (04 Marks)
- b. Explain the distributed laxity based priority scheduling scheme with feedback mechanism. (08 Marks)
- c. Give the brief explanation of working of a MAC protocol using directional antennas. (08 Marks)
- 4 a. List the characteristics of an ideal routing protocol for an adhoc wireless network. (08 Marks)
- b. Explain Cluster head gateway switch routing protocol with neat diagram. (06 Marks)
- c. Explain associativity based routing (ABR) protocol with neat diagram. (06 Marks)

PART – B

- 5 a. Explain zone routing protocol with neat diagram. Discuss the advantages and disadvantages. (10 Marks)
- b. Discuss the power-aware routing metrics for adhoc network. (10 Marks)
- 6 a. Explain any five major reasons for throughput degradation of TCP when used in adhoc wireless network. (10 Marks)
- b. With a neat diagram, explain the operations of adhoc-TCP (ATCP) protocol. (10 Marks)
- 7 a. What are the issues and challenges faced in designing a security protocol for adhoc wireless network? (06 Marks)
- b. Define active and passive attacks. (04 Marks)
- c. Explain two major kinds of cryptographic algorithms. (10 Marks)
- 8 a. Discuss some of the design choices for providing QoS support in adhoc networks. (06 Marks)
- b. Describe briefly the ticket based QoS routing protocol used in adhoc wireless network. (06 Marks)
- c. Explain QoS enabled adhoc on-demand distance vector routing protocol. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.