



10CS/IS841

Eighth Semester B.E. Degree Examination, June/July 2019
Adhoc Networks

Time: 3 hrs.

Max. Marks:100

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

PART - A

- 1 a. Bringout the differences between cellular networks and adhoc wireless networks. (06 Marks)
b. Explain the following with respect to issues in adhoc wireless networks: i) routing (08 Marks)
ii) security. (08 Marks)
c. Explain the major issues for a successful adhoc wireless internet with a neat diagram. (06 Marks)
- 2 a. Explain DPRMA protocol with respect to MAC along with its frame structure. Also mention its advantages and disadvantages. (06 Marks)
b. List the important goals to be met while designing a MAC protocol for adhoc wireless networks. (06 Marks)
c. Explain the five phase reservation protocol with its phases and frame structure. (08 Marks)
- 3 a. Describe piggy backing and scheduling table update mechanism in distributed priority scheduling with respect to MAC protocols. (10 Marks)
b. Bring out the channel classification and selection operation in the MMAC protocol. (10 Marks)
- 4 a. List out the characteristics of an ideal routing protocol for an adhoc wireless networks. (06 Marks)
b. Mention the classification of routing protocols in adhoc networks. (06 Marks)
c. Explain the route establishment in AODV routing protocol with its advantages and disadvantages. (08 Marks)

PART - B

- 5 Write a short note for the following with respect to routing protocols:
a. Zone routing protocol (06 Marks)
b. Fisheye state routing protocol (06 Marks)
c. Optimized link state routing. (08 Marks)
- 6 a. Discuss the issues in designing a transport layer protocol for adhoc wireless networks along with classification of transport layer solutions. (10 Marks)
b. Describe the major reasons behind throughput degradation that TCP faces when used in adhoc wireless networks. (10 Marks)
- 7 Write short note for the following with respect to security in adhoc wireless networks.
a. Security-aware AODV protocol. (10 Marks)
b. Key management in adhoc wireless networks. (10 Marks)
- 8 a. Describe the issues and challenges in providing QOS in adhoc wireless networks. (10 Marks)
b. Explain ticket based QOS routing protocol with an example. Mention its advantages and disadvantages. (10 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.