



10CS/IS841

Eighth Semester B.E. Degree Examination, Dec.2019/Jan.2020  
**Ad-hoc Networks**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting atleast TWO questions from each part.**

**PART – A**

- 1 a. List and explain the application of Ad-hoc wireless network. (10 Marks)  
b. With the help of neat diagram explain Ad-hoc wireless internet. (10 Marks)
- 2 a. Explain the design goals of a MAC protocol for Ad-hoc wireless networks. (06 Marks)  
b. Briefly explain 5 phase reservation protocol with frame structure. (08 Marks)  
c. Explain MACA with Piggy-Backed reservation. (06 Marks)
- 3 a. Explain the use of directional antennas in MAC protocols for Ad-hoc networks. (06 Marks)  
b. With the help of figure, explain Distributed Laxity Based Privities Scheduling Scheme (DLSP). (08 Marks)  
c. Explain interleaved carrier sense multiple access protocol. (06 Marks)
- 4 a. Explain any DSDV table driven routing protocol for Ad-hoc wireless network. (10 Marks)  
b. Explain the working of Adhoc on –Demand Distance Vector Routing Protocol (AODV). (10 Marks)

**PART – B**

- 5 a. Explain ZRP (Zone Routing Protocol) with figure. (10 Marks)  
b. Explain Preferred Link Based Routing Protocol (PLBR). (10 Marks)
- 6 a. Explain the issues and design goals of transport layer protocol for Ad-hoc wireless network. (10 Marks)  
b. Give five reasons stating why TCP doesn't work well in Ad-hoc wireless network. (10 Marks)
- 7 a. Explain the four key network security requirements. (04 Marks)  
b. Briefly explain issues and challenges in security provisioning. (08 Marks)  
c. Explain with diagram, security aware Ad-hoc routing protocol. (08 Marks)
- 8 a. Briefly explain the issues and challenges in providing QoS in Ad-hoc wireless networks. (08 Marks)  
b. Explain the cluster-TDMA protocol used for providing MAC layer QoS solution in Ad-hoc networks. (06 Marks)  
c. Write a note on hard state versus soft state resource reservation. (06 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.