10CS/IS841

Eighth Semester B.E. Degree Examination, Dec.2023/Jan.2024
Ad-hoc Networks

Time: 3 hrs.   Max. Marks:100

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

PART – A

1   a.   List the difference between cellular and adhoc wireless networks.   **(10 Marks)**
    b.   Discuss in brief the major issues and challenges that need to be considered when an adhoc wireless system is to be designed.   **(10 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.   Describe distributed priority scheduling scheme.   **(10 Marks)**
    b.   Explain the directional busy tone based MAC protocol.   **(10 Marks)**

4   a.   Explain the wireless routing protocol.   **(10 Marks)**
    b.   Explain the Flow-oriented Routing protocol.   **(10 Marks)**

PART – B

5   a.   Explain Fisheye state routing protocol with necessary routing tables.   **(10 Marks)**
    b.   Explain in detail zone routing protocol (ZRP).   **(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.   Explain network layer attacks in adhoc wireless network.   **(10 Marks)**
    b.   Explain the security aware adhoc routing protocol.   **(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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