Time: 3 Hours   Marks: 80

N.B.:1) Q.1 is compulsory

    2) Attempt any **three** from remaining **five** questions

    3) All questions carry equal marks

Q.1 a). What are the main issues that need to be addressed while designing a MAC protocol for Ad-hoc network?   [10]

    b). What are the design goals of a Transport Layer Protocol for Ad-hoc wireless networks?   [10]

Q.2 a). Describe the working mechanism of MAC protocol using directional antenna. Explain one protocol in this category.   [10]

    b) Classify the network security attack and explain active attacks of any one layer.   [10]

Q.3 a) Explain route establishment in DSDV with example.   [10]

    b) Explain issues and challenges in providing QoS in Ad-hoc wireless networks.   [10]

Q. 4 a) Why does TCP not perform well in Ad-hoc wireless networks? Explain.   [10]

    b).Explain in details Ticket-based QoS routing protocol.   [10]

Q.5 a) Explain the classification of routing protocols in Adhoc Networks and state the difference between proactive and reactive routing.   [10]

    b) Describe the issues and challenges faced in designing a security protocol for Ad-hoc Wireless Network.   [10]

Q. 6. a) Define soft reservation. Explain soft reservation Multiple Access with Priority Assignment using frame structure   [10]

    b). Give brief explanations of power aware routing metrics of Ad-hoc wireless networks.   [10]