



PART B — (5 × 13 = 65 marks)

11. (a) Explain the working of the MACAW routing protocol with appropriate diagrams. (13)

Or

- (b) Explain the working of the Dynamic Source Routing (DSR) protocol. Discuss its advantages and disadvantages. (13)
12. (a) Compare TCP-F, TCP-ELFN and TCP-BuS in regard to different issues relevant to transport layer protocol design for ad hoc networks. (13)

Or

- (b) Explain the QoS extensions done to AODV routing protocol to provide QoS support. (13)
13. (a) Discuss about the specific requirements and the design considerations for MAC protocols in wireless sensor networks. (13)

Or

- (b) Explain the working of the Sparse Topology and Energy Management (STEM) protocol. (13)
14. (a) How is data disseminated in a wireless sensor network using the Sensor Protocol for Information via Negotiation (SPIN)? (13)

Or

- (b) Discuss the tasks that are commonly attributed to transport layer protocols and also the challenges that are particular to transport protocols for wireless sensor networks. (13)
15. (a) Write short notes on key distribution and management. (13)

Or

- (b) Explain the working of the TESLA protocol. (13)

PART C — (1 × 15 = 15 marks)

16. (a) What are the issues and challenges in designing ad hoc networks? For any one issue, explain how researchers have handled and solved it over the years. (15)

Or

- (b) Discuss the need for topology control in wireless sensor networks. Discuss and compare the different options available for topology control. (15)