

PART B — (5 × 16 = 80 marks)

11. (a) (i) Compare Infra Red vs Radio Transmission techniques. (8)
(ii) Elucidate the advantages of WLAN techniques. (8)

Or

- (b) Draw the protocol architecture of WLAN (802.11). Explain the physical layer and MAC management layer of 802.11. (16)

12. (a) (i) Imagine the following scenario. A Japanese and a German meet at a conference on Hawaii. Both want to use their laptops for exchanging data, both run mobile IP for mobility support. Explain the optimizations used in this mobile IP Networks. (8)
(ii) Discuss on the Entities and terminology of mobile IP networks. (8)

Or

- (b) Explain the Destination Sequence Distance Vector routing protocol. Mention its features. (16)

13. (a) (i) How does mobile TCP play an important role in Mobile transport layer? Discuss in detail. (8)
(ii) Explain any two classical TCP improvements for mobility. (8)

Or

- (b) Explain in detail about the TCP over 3G wireless networks. (16)

14. (a) With neat diagram, explain the Reference Architecture of UMTS. (16)

Or

- (b) Describe Channel Structure in UMTS Terrestrial Radio. (16)

15. (a) (i) What is 4G? Compare the key parameters of 4G with 3G. (10)
(ii) Write a note on Cognitive Radio. (6)

Or

- (b) (i) What is a Multi-Input Multi-Output (MIMO) system? Explain. (6)
(ii) With neat block diagram explain the OFDM Transmitter and Receiver. (10)