**Question bank**

1. Compare LAN, MAN and WAN.
2. Discuss the function of various layers of OSI Model and compare with TCP/ IP Model.
3. Explain different layers in OSI model? Discuss in detail about OSI Model.
4. Explain different layers in TCP/IP protocol suite.
5. What is ISO-OSI reference model. Discuss TCP/IP in detail.
6. Explain about Routers, Repeaters and Hubs?
7. Explain TCP/IP in details, giving an example of TCP/IP operation.
8. What is network topology? Explain any two types of network topologies giving advantages and disadvantages of each.
9. What is CRC? If the generating polynomial for CRC code is x4+x3+1 and message word is 11110000, determine check bits and coded word.
10. Describe Architecture and layers of Bluetooth.
11. Let g(x)= x3+x+1 consider the information sequence 1001

i) Find the code word corresponding to the information sequence.

ii) Suppose that the code word has a transmission error in the first.

What does the receiver obtain when it does its error checking.

12. a) Explain in detail about the sliding window protocol using Selective Repeat ARQ. b) Explain in detail about the sliding window protocol using Go-Back-N.

13. a) What is the maximum overhead in byte-stuffing algorithm?

b) Explain in detail about byte count, flag bytes with byte stuffing, bit stuffing, physical layer coding violation.

14. A bit string, 0111101111101111110, needs to be transmitted at the data link layer. What is the string actually transmitted after bit stuffing?

15. Define pipelining, piggy banking?

16. a) Elaborate the design issues of data link layer. b) What is the need for framing? What are the different framing techniques?