

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code : 86547

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2021.

Sixth Semester

Electronics and Communication Engineering

CS 1302 A — COMPUTER NETWORKS

(Regulations 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Identify the five components of a Data communication network.
2. How many lines are required to direct connect 256 nodes in a mesh system?
3. Define piggy back.
4. Mention the types of bridges.
5. What are the uses of classless addressing scheme?
6. What is the drawback of distance vector routing?
7. Write the function of socket programming.
8. State the difference between TCP and UDP.
9. What is the purpose of DNS?
10. What is the need for security?

PART B — (5 × 16 = 80 marks)

11. (a) Discuss in detail the ISO-OSI model and explain the functions of various layers. (16)

Or

- (b) What are the requirements of reliable transmission? Discuss about the linear block codes with illustration. (16)

12. (a) (i) Explain any two error correction code in detail with a suitable example. (8)
(ii) Write a detailed note on sliding window protocol. (8)

Or

- (b) (i) Discuss the architecture of IEEE802.11. (8)
(ii) Write a detailed note on SONET. (8)
13. (a) Illustrate the working mechanism of distance vector routing with suitable example. (16)

Or

- (b) Illustrate the working mechanism of link state routing with an example. (16)
14. (a) (i) Explain the issues in connection establishment and connection tear down in transport layer. (6)
(ii) What is Congestion control? Why it is more important in communication networks? (4)
(iii) Explain the packet structure of UDP. (6)

Or

- (b) (i) Explain various congestion control techniques adopted in transport layer. (10)
(ii) Write and explain the Nagles algorithm. (6)
15. (a) Explain the concept of simple mail transfer protocol emphasizing user agent and mail transfer agent. (16)

Or

- (b) Explain HTTP transaction and uniform resource locator. (16)
