Reg. No. ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code	12290

B.E. / B.Tech - DEGREE EXAMINATIONS, NOV / DEC 2023
Sixth Semester
Electronics and Communication Engineering
20ECPC602 - COMMUNICATION NETWORKS
(Regulations 2020)

Duration: 3 Hours   Max. Marks: 100

PART - A (10 × 2 = 20 Marks)
Answer ALL Questions

Marks,
K-Level, CO

1. List the metrics that influence the performance of computer networks.   2,K2,CO1
2. What is transmission media? Give example.   2,K1,CO1
3. List out the functions of data link layer.   2,K1,CO2
4. Define Hidden node problem.   2,K1,CO2
5. Differentiate between forwarding table and routing table.   2,K2,CO3
6. Check whether the following IPv6 address notations are correct.   2,K1,CO3
   (a) FE80:2030:31:24   (b) AE82::1:800:23E7:F5DB
7. What is meant by slow start in TCP congestion?   2,K1,CO4
8. What is the use of RED algorithm?   2,K1,CO4
9. Present the information contained in DNS resource record.   2,K2,CO5
10. What is the use of SNMP protocol in a network?   2,K1,CO5

PART - B (5 × 16 = 80 Marks)
Answer any Five questions

11. With the neat sketch explain the functions of TCP/IP network architecture.   16,K2,CO1
12. Explain in detail about the types of switching in networks.   16,K2,CO1
13. Describe the functions of ARP and RARP protocols with frame formats.   16,K2,CO2
14. Explain the function of IEEE 802.3 LAN Standard with its frame format.   16,K2,CO2
15. With an example network scenario explain the mechanism of distance vector routing algorithm and build the routing table for the same.   16,K2,CO3
16. Draw a TCP state transition diagram for connection management and explain the three way handshaking in TCP.   16,K2,CO4
17. Write a detailed note on congestion avoidance mechanisms used in TCP.   16,K2,CO4
18. Discuss in detail about FTP and SMTP.   16,K2,CO5

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   ***12290***