| Reg. No. | | | | | | | | | | | | |
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| Question Paper Code | 12292 |
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**B.E./B.Tech - DEGREE EXAMINATIONS, NOV / DEC 2023**

Sixth Semester

**Computer Science and Business Systems**

**20CBPC601 - COMPUTER 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.<br>(a) FE80:2030:31:24 (b) AE82::1:800:23E7:F5DB | *2,K1,CO3* |
| 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* |