



SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
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QUESTION BANK (DESCRIPTIVE)

Subject with Code : Computer Networks (19MC9112)

Course : MCA

Year & Sem: II-MCA & I-Sem

Regulation: R19

UNIT –I

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|----|---|------------|-------|
| 1 | Distinguish between TCP/IP and OSI Model | [L4] [CO1] | [12M] |
| 2 | Explain B-ISDN ATM reference Model | [L2] [CO2] | [12M] |
| 3 | A) Explain detail about Network Hardware | [L2] [CO2] | [6M] |
| | B) How network hardware supports the communication of two systems? | [L2] [CO2] | [6M] |
| 4 | Describe the Transmission Media and their types of Transmission Media? | [L2] [CO3] | [12M] |
| 5 | List out and explain the design issues of data link layer | [L1] [CO3] | [12M] |
| 6 | A) What is Elementary data link protocols | [L1] [CO1] | [6M] |
| | B) Explain about TDM? | [L1] [CO2] | [6M] |
| 7 | A) What do you mean by sliding window protocol? | [L1] [CO5] | [6M] |
| | B) Distinguish between Go-back-N protocol and selective repeat protocol. | [L4] [CO1] | [6M] |
| 8 | A) What is pure ALOHA and slotted ALOHA? | [L1] [CO1] | [6M] |
| | B) Discuss with a suitable example, the hamming code in detail. | [L6] [CO3] | [6M] |
| 9 | Describe the working principle of Carrier sense multiple access with collision detection (CSMA/CD). | [L2] [CO5] | [12M] |
| 10 | Describe IEEE Standard 802 for LAN's Ethernet? | [L2] [CO1] | [12M] |

UNIT –II

- 1 Explain count-to-infinity problem & solution in distance vector routing. [L2] [CO3] [12M]
- 2 Show the general principles of various congestion control algorithms. [L1] [CO5] [12M]
- 3 Write short note on General principles of Congestion control. [L1] [CO5] [12M]
- 4 Explain shortest path routing. [L2] [CO1] [6M]
- 5 Explain and discuss how the link state routing uses Dijkstra's algorithm to update the Routing tables. [L2] [CO1] [12M]
- 6 Explain distance vector routing algorithm. [L2] [CO1] [6M]
- 7 Explain detailed about Flooding & Broadcast Routing Algorithms. [L2] [CO1] [12M]
- 8 A) Determine the term choke packet [L5][CO1] [6M]
B) Describe the involvement of choke packets in congestion control. [L2] [CO2] [6M]
- 9 Explain the prevention polices of congestion? [L2] [CO3] [12M]
- 10 A) Describe about the details of Choke packets [L2] [CO1] [6M]
B) Discuss about Load shedding. [L6] [CO1] [6M]

UNIT –III

- 1 A) What is Fragmentation? [L1] [CO1] [6M]
B) Explain the detailed about types of Fragmentation. [L1] [CO1] [6M]
- 2 A) What is multicasting? [L1] [CO1] [6M]
B) Discuss about multicasting techniques & protocols [L6] [CO3] [6M]
- 3 Describe IP protocol with IPv4 header format. [L2] [CO1] [12M]
- 4 Find the techniques for achieving good quality of service. [L1] [CO6] [12M]
- 5 Discuss the concept of tunneling. [L6] [CO3] [12M]

- 6 What is the significance of Subnetting? Explain Subnetting with example. [L1] [CO2] [6M]
- 7 Build the details about OSPF & BGP? [L3] [CO1] [12M]
- 8 Explain details about Internet control protocols? [L2] [CO1] [12M]
- 9 What is ATM? Describe detail about ATM? [L1] [CO1] [12M]
- 10 A) Determine the term tunneling. Discuss various classes of IP address. [L5][CO2] [6M]
B) Explain various qualities of services in network layer. [L2] [CO6] [6M]

UNIT –IV

- 1 A) Evaluate functions of transport layer, state transport service primitives? [L5] [CO6] [6M]
B) Discuss TCP transmission policy. [L6] [CO3] [6M]
- 2 A) Discuss various flow control mechanisms in transport layer. [L6] [CO3] [6M]
B) Discuss briefly about UDP. [L6] [CO1] [6M]
- 3 A) Write a detailed note on transport service primitives. [L1] [CO1] [6M]
B) Explain briefly about description about the flow control and buffering. [L2] [CO3] [6M]
- 4 Explain three way handshaking for connection establishment in TCP. [L2] [CO2] [12M]
- 5 How does UDP differ from TCP? List the applications of UDP. [L1] [CO1] [12M]
- 6 A) Write short notes on Transport layer? [L1] [CO3] [6M]
B) How Transport layer supports the connections establish, releasing connection, flow control, buffering & crash recovery? [L1] [CO1] [6M]
- 7 A) What are the functions of transport layer? [L1][CO3] [6M]
B) State transport service primitives. [L1] [CO3] [6M]
- 8 A) Write the structure of TCP pseudo header? [L1] [CO1] [6M]
B) Explain how TCP pseudo header is used in checksum calculation. [L1] [CO1] [6M]

- 9 Discuss adaptive retransmission in the transport layer. [L6] [CO3] [12M]
- 10 A) Discuss UDP; discuss the different fields of format used in datagram. [L6] [CO1] [6M]
B) List out the uses of UDP protocol. [L1] [CO1] [6M]

UNIT –V

- 1 A) Explain the message authentication operation used in RSA technique. [L2] [CO1] [6M]
B) What is meant by firewall? Explain the types of firewall. [L1] [CO1] [6M]
- 2 A) Describe various characteristics of networks security. [L2] [CO2] [6M]
B) Discuss briefly about RSA algorithm. [L6] [CO1] [6M]
- 3 A) What is digital signature? [L1] [CO1] [6M]
B) Explain digital signature using message digests. [L1] [CO3] [6M]
- 4 Describe details about Cryptographic algorithms? [L2] [CO1] [12M]
- 5 Explain details about HTTP, SNMP [L2] [CO1] [12M]
- 6 Explain in details about Network management system. [L2] [CO1] [12M]
- 7 Describe importance of DNS in Application Layer. [L2] [CO3] [12M]
- 8 Describe details about Traditional applications? [L2] [CO4] [12M]
- 9 Explain briefly about the DNS, MIME [L2] [CO1] [12M]
- 10 A) What is a name server? [L1] [CO1] [6M]
B) Explain the features of various name servers. [L1] [CO1] [6M]

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