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

Subject with Code: Computer Networks (20MC9108)   **Course & Branch**: MCA

Regulation: R20   **Year & Sem:** I MCA & II-Sem

UNIT –I
INTRODUCTION

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
NETWORK LAYER

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
INTERNETWORKING

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
TRANSPORT LAYER

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
APPLICATION LAYER

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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