

**SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES.
(AUTONOMOUS)
CHITTOOR**

MCA DEPARTMENT



QUESTION BANK

For

COMPUTER NETWORKS (18MCA212)

Regulation – R18

Academic Year 2019 – 20

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Year & Sem :II & I**

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S. No	QUESTIONS	Blooms Taxonomy Level
UNIT -I: Introduction		
Uses of Computer Networks- Network Hardware- Network Software- References Models- The Physical Layer: Guided Transmission Media- wireless Transmission- Communication Satellites.		
Part -A		
1.	Define Computer Networks?	Remembering
2.	Define Topology.	Remembering
3.	Explain different types of networks?	Understanding
4.	Explain briefly about LAN?	Understanding
5.	Describe Why are protocols needed?	Understanding
6.	Describe the importance of networking?	Understanding
7.	List two advantages of layering principle in computer networks?	Remembering
8.	List out layers in OSI reference model?	Remembering
9	List out types of guided transmission media	Remembering
10	Describe communication satellite briefly	Understanding
11	Define Station Keeping	Remembering
12	List advantages of Fiber optics cable	Remembering
Part- B		
1	Describe types of computer networks.	Understanding
2	Explain how are OSI and ISO related to each other?	Understanding
3	Explain ISO/OSI Reference model with neat diagram?	Understanding
4	Explain TCP/IP Reference model with neat diagram?	Understanding
5	Define topology and explain the topologies of the network?	Remembering
6	Explain wireless networks 802.11.	Understanding
7	Describe in detail about Guided Transmission Media	Understanding
8	Describe Microwave Transmission Technology	Understanding
9	Explain in detail about Communication Satellite	Understanding
UNIT- II: The Data Link Layer		
Data link Layer Design Issues- Elementary Data Link Protocols- Sliding Window Protocols - The Medium Access Control Sublayer: Multiple Access protocols- Ethernet- Ethernet Cabling- Manchester Encoding- The Ethernet MAC Sublayer Protocol- Ethernet Performance, Wireless LANs.		
Part - A		

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1	Define Framming	Remembering
2	Define Stop and Wait Protocol.	Remembering
3	Explain the flow control mechanism?	Understanding
4	State the functions of MAC?	Remembering
5	Define Piggybacking	Remembering
6	How performance is improved in CSMA/CD protocol compared to CSMA protocol? Explain?	Understanding
7	How CSMA/CA differs from CSMA/CD. Explain in brief?	Understanding
8	Explain the working of carrier sense multiple access protocol?	Remembering
9	Discuss the MAC layer functions of IEEE 802.11?	Remembering
10	Define ALOHA?	Remembering
11	Explain how throughput is improved in slotted ALOHA over pure ALOHA?	Remembering
Part - B		
1	Explain in detail about Data Link layer design issues.	Understanding
2	Illustrate the use of Hamming Code to correct burst error.	Applying
3	Explain Simplex Protocol in detail.	Understanding
4	Describe Sliding Window protocol.	Understanding
5	Explain about HDLC?	Understanding
6	Describe Ethernet Cabling	Remembering
7	Explain Manchester Encoding	Understanding
8	Describe Binary Exponential Back Off Algorithm in detail.	Understanding
UNIT- III: The Network Layer		
Network Layer Design Issues- Routing Algorithms, Congestion Control Algorithms-Internetworking- The Network Layer in the Internet		
Part - A		
1	List Network Layer Services	Remembering
2	Define Routing	Remembering
3	Illustrate Optimality Principle regarding Topology or Traffic	Applying
4	Define Flooding.	Understanding
5	Define Subnet	Understanding
6	What is Count to Infinity Problem? Explain	Understanding
7	Define Congestion.	Understanding
8	Explain Choke packets briefly	Remembering
9	Describe Load Shedding	Understanding
10	What is Jitter Control? Explain	Understanding
11	Define Tunneling.	Remembering
12	Criticize the requirement of Network Address Translation (NAT) in IP addressing	Analyzing
Part - B		
1	Distinguish between Connection Oriented and Connection Less Services	Analysis
2	Explain Dijkstra's algorithm to find Shortest path.	Understanding
3	Describe Distant Vector Routing algorithm in detail.	Understanding
4	Discuss Link State Protocol in detail	Understanding
5	List out Congestion Prevention Policies	Understanding
6	Discuss Internetworking Routing	Remembering
7	Explain Fragmentation in detail.	Understanding

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8	Describe IP Protocol and IP Addressing	Applying
9	Explain Classless Inter Domain Routing(CIDR) in detail.	Understanding
UNIT-IV: The Transport Layer		
The Transport Service- Elements of Transport Protocols- The Internet Transport Protocols: UDP- TCP.		
Part- A		
1	Describe Transport Service Primitives briefly	Understanding
2	List Berkeley Sockets primitives	Remembering
3	Define Buffering	Understanding
4	Draw TCP segment Header format	Remembering
5	Define TCP Transmission Policy	Understanding
6	Describe RTP protocol.	Remembering
7	What is Transport Service Access Point? Explain	Understanding
8	Define RPC	Understanding
Part - B		
1	Explain elements of transport layer protocols	Understanding
2	Describe Internet Transport Protocol UDP	Understanding
3	Describe Internet Transport Protocol TCP	Understanding
4	Explain TCP Connection Management Model in detail	Understanding
5	Differentiate TCP and UDP	Analyzing
6	How TCP establish Connection. Explain.	Understanding
7	How Remote Procedure call works? Explain in detail	Understanding
8	Explain TCP Congestion Control in Detail	Understanding
UNIT- V: The Application Layer		
DNS-The domain name system - Electronic mail- The world wide web – Multimedia.		
Part - A		
1	List the advantages of Email?	Remembering
2	Define SMTP?	Remembering
3	Define two methods of HTTP?	Understanding
4	Explain briefly about Name Servers	Understanding
5	Define SMTP?	Remembering
6	Explain the concept of Telnet?	Understanding
7	Define FTP?	Remembering
8	Differentiate between FTP & HTTP?	Analyzing
9	State advantages of stateless server of HTTP?	Remembering
10	Define message Formatting?	Remembering
Part - B		
1	Define Domain Name Service (DNS) and explain in detail about the domain hierarchy and name servers?	Remembering
2	Describe Static Web Documents.	Remembering

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3	Describe in detail about the World Wide Web (WWW) ?	Remembering
4	Differentiate Lossy Compression and Lossless Compression?	Analyzing
5	Discuss about formats in detail	Understanding
6	Explain MIME?	Understanding
7	Illustrate the use of MIME Extension?	Applying
8	Explain HTTP methods in detail	Understanding