

## Department of CSE(AI&ML)

### B.Tech Mid Question Bank (R22 Regulation)

Academic Year: 2024-2025

Semester:V

Subject Name: COMPUTER NETWORKS (22AM503PC)

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#### PART-A

MID-I Questions					
Q.No	Questions	Marks	BL	CO	Unit No
1	Define networks.	2	L1	CO1	I
2	Define Topology.	2	L1	CO1	I
3	What are the seven layers of OSI Model?	2	L1	CO1	I
4	Define Guided Media.	2	L1	CO1	I
5	Define Unguided media.	2	L1	CO1	I
6	Define protocol.	2	L1	CO1	I
7	Define ARQ.	2	L1	CO2	II
8	Define Piggybacking.	2	L1	CO2	II
9	Define sliding window.	2	L1	CO2	II
10	Draw the frame format of Ethernet.	2	L1	CO2	II
11	List out the Ethernet types.	2	L1	CO2	II
12	Define CSMA /CD.	2	L1	CO2	II
13	Define Unicast, multicast and broadcast.	2	L1	CO3	III
14	Distinguish between bridges and routers.	2	L1	CO3	III
15	Compare Ethernet address with IP address.	2	L1	CO3	III
MID-II Questions					
16	What are the functions of IP Protocol?	2	L1	CO3	III
17	Identify the class and default subnet mask of the IP address 217.65.10.7.16.	2	L1	CO3	III
18	Define internetworking.	2	L1	CO3	III
19	What is quality of service in transport layer?	2	L1	CO4	IV
20	Define silly window syndrome in TCP.	2	L1	CO4	IV
21	What is advantage of UDP over TCP?	2	L1	CO4	IV
22	Define multiplexing and Demultiplexing in TCP.	2	L1	CO4	IV
23	Write the UDP header diagram.	2	L1	CO4	IV
24	What is the need of three way handshaking protocol?	2	L1	CO4	IV
25	Mention the various types of Domain Name Space and give an example for inverse DNS.	2	L1	CO5	V

26	List the importance of user agent in email communication.	2	L1	C05	V
27	Mention the role of SMTP and how is it different from FTP.	2	L1	C05	V
28	What are the various types of WWW documents?	2	L1	C05	V
29	Expand Telnet and its importance in networks.	2	L1	C05	V
30	What is DNS namespace?	2	L1	C05	V

### PART –B

<b>MID-I Questions</b>					
1	What is the main difference between TCP and UDP?	4	L2	C01	I
2	Explain TCP/IP Reference model.	4	L2	C01	I
3	Compare TCP/IP Reference model and OSI Reference model.	4	L2	C01	I
4	Explain Fiber optics modes of propagations.	4	L2	C01	I
5	Give brief discussion of Twisted pair cable and coaxial cable.	4	L2	C01	I
6	What are different transmission modes?	4	L2	C01	I
7	Explain detail about the transmission media for data transmission.	8	L2	C01	I
8	What are the functions of OSI layers? Discuss.	8	L2	C01	I
9	Explain in detail about the types of topologies.	8	L2	C01	I
10	Explain the sliding window protocol.	4	L2	C02	II
11	Explain Go-back-n protocol with neat diagram.	4	L2	C02	II
12	Explain various methods of framing in data link layer.	4	L2	C02	II
13	Explain in brief pure ALOHA, slotted ALOHA.	4	L2	C02	II
14	Explain CSMA/CD.	4	L2	C02	II
15	Explain in detailed a simplex stop and wait protocol for an error-free channel.	4	L2	C02	II
16	Define CRC. Explain CRC generator & CRC checks in detail with one example.	8	L3	C02	II
17	Explain in detailed a simplex stop and wait protocol for noisy channel.	8	L2	C02	II

18	Explain in detailed about Go Back N ,ARQ AND selective repeat ARQ.	8	L2	CO2	II
19	What are the services provided by the network layer to transport layer? Illustrate	4	L2	CO3	III
20	What is flooding? Explain it with an example also mention the advantages and disadvantages of flooding?	4	L3	CO3	III
21	What is meant by congestion? How congestion is controlled in virtual –circuit subnet	4	L2	CO3	III
<b>MID-II Questions</b>					
22	Write a short notes on following routers i) Hierarchical routing ii) Broadcast routing iii) Multicast routing	4	L2	CO3	III
23	What is OSPF? Explain different kinds of router supported in OSPF.	4	L2	CO3	III
24	Discuss congestion prevention policies in datalink, network and transport layers.	4	L2	CO3	III
25	Explain about the connection management in the TCP.	4	L2	CO4	IV
26	Draw the TCP header format and brief on the TCP header fields.	4	L2	CO4	IV
27	What are the services provided by transport layer to its upper or higher layers?	4	L2	CO4	IV
28	Discuss different socket primitives used by TCP.	4	L2	CO4	IV
29	Differentiate between data link layer and transport layer protocols.	4	L2	CO4	IV
30	With the help of diagram explain different fields in TCP header.	4	L2	CO4	IV
31	What do you mean by TCP? Explain the TCP structure.	8	L2	CO4	IV
32	Discuss the relationship between transport layer and network layer. Discuss TCP as a transport layer protocol along with its segment structure.	8	L3	CO4	IV
33	Define multiplexing. What are the benefits of using multiplexing? Discuss Go-Back-N and Selective Repeat protocol in detail.	8	L2	CO4	IV
34	Explain the following E-mail standards with its compressions	4	L3	CO5	V

	i) SMTP ii) MIME				
<b>35</b>	Explain the architecture of File Transfer Protocol (FTP).	<b>4</b>	<b>L2</b>	<b>C05</b>	<b>V</b>
<b>36</b>	Discuss different categories of Simple Network Management Protocol.	<b>4</b>	<b>L2</b>	<b>C05</b>	<b>V</b>
<b>37</b>	What is the use of Domain Name System and Explain the different types of the Domain Name System with an example.	<b>4</b>	<b>L3</b>	<b>C05</b>	<b>V</b>
<b>38</b>	What is World Wide Web? Brief on the architectural overview of the world wide web.	<b>4</b>	<b>L2</b>	<b>C05</b>	<b>V</b>
<b>39</b>	Mention the different types of electronic mail and also Illustrate the different parts of E-mail Address.	<b>4</b>	<b>L2</b>	<b>C05</b>	<b>V</b>
<b>40</b>	Explain the principles of application layer protocols. What do you mean by file transfer.	<b>8</b>	<b>L2</b>	<b>C05</b>	<b>V</b>
<b>41</b>	Define DNS. Explain the DNS records and DNS messages.	<b>8</b>	<b>L2</b>	<b>C05</b>	<b>V</b>
<b>42</b>	Discuss about streaming audio and video.	<b>8</b>	<b>L2</b>	<b>C05</b>	<b>V</b>