



## **PALLAVI ENGINEERING COLLEGE**

### **Module / Unit wise Question Bank**

<b>Name of the Faculty:</b>	<b>M.RAVI</b>		
<b>Subject:</b>	<b>COMPUTER NETWORKS</b>		
<b>Class:</b>	<b>II B.TECH - II SEMISTER</b>		
<b>Branch:</b>	<b>CSE-CS</b>	<b>Regulation:</b>	<b>R22</b>

### **MODULE- I**

#### **Part-A: Short Answer Question ( 1 Mark)**

<b>Q.NO</b>	<b>Question</b>
1	Define computer Networks.
2	Define protocols
3	Define Internet?
4	Define network topology?
5	What is network software?
6	What is network hardware?
7	What is an ARPANET?
8	What is Internet?
9	Define error control?
10	Define CRC?

### **MODULE- I**

#### **Part-B: Long Answer Question ( 5 M and 10 Marks)**

<b>Q.NO</b>	<b>Question Statement</b>
1	Explain the role of ARPANET in computer networks?
2	Draw the layered architecture of OSI reference model and explain the functionalities provided by each layer of the model.
3	Explain in detail about TCP/IP protocol suite with neat diagram? / Explain the functioning of various layers in TCP/IP reference model
4	Distinguish the OSI and TCP/IP Reference Models
5	Explain about the Guided transmission Medias in computer networks? / Give a brief overview on guided transmission media.
6	Explain about the Unguided transmission Medias in computer networks
7	Explain the design issues of data link layer?
8	A Bit stream 100100 is to be transmitted using standard CRC method with divisor value $x^3+x^2+1$ . Generate the CRC code word.
9	With a neat sketch explain the CRC Encoder and Decoder structure with an example?

<b>MODULE- II</b>	
<b>Part-A: Short Answer Question ( 1Mark )</b>	
<b>Q.NO</b>	<b>Question Statement</b>
1	Define ALOHA?
2	Define simplex protocol?
3	Define sliding window protocol?
4	What is CSMA?
5	What is vulnerable period?
6	What is multiple access protocols
7	What is pure ALOHA?
8	What is slotted ALOHA?
9	Define WLAN?
10	Define switching?
11	What is framing?
12	What is flow and error control?

<b>MODULE- II</b>	
<b>Part-B: Long Answer Question ( 5 M and 10 Marks)</b>	
<b>Q.NO</b>	<b>Question Statement</b>
1	Explain the noiseless protocols in Data link layer with a flow diagram?
2	With a flow diagram explain Go-Back-N ARQ protocol?
3	Explain about the sliding window protocol using selective repeat?
4	Compare and contrast Go back N and selective Repeat ARQ?
5	Distinguish between Pure ALOHA and Slotted ALOHA? / Compare and contrast Pure ALOHA and Slotted ALOHA channel allocation Methods
6	With a neat flow diagram explain the persistent methods of CSMA?
7	Define collision. Explain collision free protocols. Mention advantage of each protocol? / Explain bit-map and binary countdown collision free protocols.
8	How CSMA/CA differs from CSMA/CD?
9	Explain about simplex stop and wait protocol for noisy channel.

<b>MODULE- III</b>	
<b>Part-A: Short Answer Question ( 1Mark)</b>	
<b>Q.NO</b>	<b>Question Statement</b>
1	Define tunneling?
2	What is flooding in networks?
3	What is meant by congestion?
4	What is shortest path routing?
5	What is multicasting?
6	What is unicasting?
7	What is broadcasting?
8	What do you meant by routing table?

<b>MODULE- III</b>	
<b>Part-B: Long Answer Question ( 5 M and 10 Marks)</b>	
<b>Q.NO</b>	<b>Question Statement</b>
1	Explain Distance Vector Routing Algorithm with example? / Demonstrate how to make routing table using distance vector routing and list down the limitations.
2	Explain the design issues of network layer?
3	Discuss the hierarchical routing with examples?
4	Write briefly about Congestion control in datagram subnets?
5	With an example, explain shortest path routing / Describe Dijkstra shortest path algorithm. Also show working of Dijkstra algorithm with the help of an example?
6	What are the services provided by transport layer to the upper layer?
7	Explain the types of Internetworking?
8	Explain the techniques to improve the QoS in the network layer? / Explain about QoS in Network layer.
9	Compare multicasting with broadcasting

MODULE- IV	
Part-A: Short Answer Question ( 1 Mark)	
Q.NO	Question Statement
1	What is connection management in TCP?
2	What is the function of transport layer?
3	What is UDP?
4	What is multiplexing?
5	What is TCP?
6	How do you find out the length of TCP header?
7	What is connectionless service?
8	Draw the header structure of UDP protocol?

MODULE- IV	
Part-B: Long Answer Question ( 5 M and 10 Marks)	
Q.NO	Question Statement
1	Explain the TCP header fields in detail? / Describe in brief about TCP segment Header. / Explain each field in TCP header with neat diagram.
2	Explain the features and applications of UDP?
3	Illustrate the connection establishment and release in transport layer? / Explain the three way handshake protocol for connection establishment in TCP?
4	Differentiate between TCP and UDP?
5	Explain the services of Transport layer with illustrations. / What are the services provided by transport layer to the upper layers?
6	Explain the features and applications of TCP?
7	State and explain the elements of transport protocols?
8	Explain the advantages and disadvantages of TCP and UDP protocols?

**MODULE- V****Part-A: Short Answer Question ( 1 Mark )**

Q.NO	Question Statement
1	What is the header format of HTTP reply message?
2	Define SNMP protocol?
3	What is the architecture of WWW?
4	Define DNS?
5	Define E-mail?
6	What is streaming?
7	Draw the Request message format in HTTP.
8	List out advantages of
9	What is the function of application layer?

**MODULE- V****Part-B: Long Answer Question ( 5 M and 10 Marks)**

Q.NO	Question Statement
1	Describe the HTTP request header.
2	What is the use of DNS? Explain how it works? /What are the two main categories of DNS messages? Explain. / What is DNS? What are the services provided by DNS?
3	What is an Electronic mail? Explain the two scenarios of architecture of E-Mail?/ Explain the working of E-mail service with a diagram.
4	Explain the architecture of WWW. Discuss client and server side functionality of this architecture?
5	What is SNMP? Briefly discuss the SNMP model components? / Elaborate on SNMP with an example.
6	What is audio streaming? How does it work?/ How Streaming of audio and video can be done?