Model Questions.

Module-1

1) Describe any three application of computer networks.
2) What are the reasons for using Layered Architecture in Computer Networks.
3) Describe the ISO/OSI layered architecture with the help of neat diagram.
4) What is LAN,MAN,WAN
5) What is protocol? What are the elements of protocols.?
6) What are the connection oriented and connectionless service
7) What is the difference between OSI and TCP/IP reference model.
8) Explain the Manchester and differentia Manchester encoding.
9) Explain the transmission media with example.? And listed the types of Transmission media.
10) What are the different performance indicators of a network.? List them.
11) Describe the Bandwidth-delay product and write the cases.

Module-2

1) Define the data link layer. What are the data link layer design issues ? Discuss them.
2) What is error? And also write the type of errors.
3) Write short notes on the following.
    1) Parity Checks.
    2) Checksum.
4) Discuss about the Hamming code.
5) Let us suppose the message the frame 1101011011 for which the divisor is 10011. Compute the CRC.

6)Discuss bout Stop-and-wait ARQ and sliding window ARQ with Suitable diagram.

7)What is the difference between selective-repeat and Go-back N

8)Discuss HDLC? What are the different types of Stations? Also explain the transfer modes of HDLC.

9)What is the structure of MAC.

10)Write note on ALOHA and CSMA.

11)How does pure aloha and slotted aloha differ.?

12)Explain the working of CSMA/CD.?

13)Write note on CSMA/CA

14)What is Ethernet? what is the frame format of Ethernet..?

15)Explain the Bridges and switches with example.?

16)Describe about the router and gateways in detail.

Module-3

1)What is network layer.? What are the functions of network layer.?

2)What are the different design issues of network layer.?

3)Explain the Optimality principle.

4)Discuss the shortest path routing. Also explain the Dijkstra's algorithm in detail.

5)Differentiate between static and dynamic routing.

6)Describe the distance vector routing algorithm in detail.

7)What is open loop and closed loop congestion control.

8)Define leaky bucket and token bucket algorithm for congestion control.

9)What is meant by term QoS? What are the different flow characteristics.?

10)Discuss the common techniques used in computer networks to improve the QoS.

Module-4

1)What is IP..? Also give the frame format of IP.?

2)What is classful and classless addressing..?

3)What is sub netting..?

4)A network on the internet has a subnet mask of 255.255. 240.0. What is the maximum number of hosts it can handle..?

5)Discuss about internet control message protocol..?

6)What is ARP..? Explain its working..

7)Define reverse Address Resolution Protocol.(RARP).?

8)Write short note on BOOTP..

9)What is DHCP..? Discuss the DHCP header with diagram..

10)Differentiate between BOOTP and DHCP.

11)What is interior and exterior routing protocol.

12)Explain the IPV4 with its datagram format..?

13)Differentiate IPV4 and IPV6.

Module-5

1)What is transport layer..? What are the functions of transport layer..?

2)What are port numbers , give its importance in computer communication..?

3)What is TCP ? write the TCP packet format..?

4)Discuss how the connection is establish and released in the TCP.

5)Discuss about the two-way and three way handshake.

6)What is UDP.? Also explain the UDP header format..?

7)Discuss the different congestion control algorithms in Transport layer../

8)What is Application layer..? what are the functions of application layer..?

9)What are the different TCP services.

10)What is Domain Name Space (DNS).? What is the format of domain name..? List out the different elements of DNS..

11)What is Email ? What are the different e-mail Protocols ? List them

12) What is SMTP..? Also explain the working of SMTP.

13)Discuss about the MIME.?

14)What is WWW. ..? What are the main features of WWW.?