Question Bank

DATA AND COMPUTER NETWORKS (BECE1-518)
PART-A

1. What are the two types of line configuration?
2. What do you mean by error control?
3. Define flow control?
4. What is redundancy?
5. Write short notes on error correction?
6. Mention the types of error correcting methods.
7. What are the steps followed in checksum generator?
8. Define checksum.
9. Write short notes on CRC checker.
10. Write short notes on LRC.
11. List out the available detection methods.
12. Mention the types of errors and define the terms?
13. Distinguish between peer-to-peer relationship and a primary-secondary relationship.
14. What are the ways to address the framing problem?
15. What are the responsibilities of data link layer?
16. What are the functions of Application layer?
17. Define Bit stuffing.
18. What are the features provided by layering?
19. What are header and trailers and how do they get added and removed?
20. Group the OSI layers by function?
21.A digital signal bit rate of 2000bps. What is the duration of each bit?
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2.Write short notes on LRC.
23.What is the purpose of layering ?

PART B
1. Explain in detail the error detection and error corrections.
2. With a neat diagram explain in detail about the Network architecture.
3. Discuss in detail about HDLC.
4. What is the difference between Internet architecture and OSI architecture?
5. Discuss about the links operated on the physical media in detail.
6. Explain the different approaches of framing in detail.
7. Write short on Internet Architecture.
8.Explain Link layer And Function.
9.Discuss Software performance and hard ware performance of networks.
10. Discuss the requirement of Network.
11. Explain various multiple access techniques.
12. Compare Stop and Wait ARQ scheme with sliding window ARQ scheme.
13.Define Building network and net work requirement ?
14.What is internet architecture and example of any two?

15.Define flow control and error detection.

PART C
1. What is CSMA?
2. Explain CSMA/CD.
3. Mention some of the physical properties of Ethernet.
4. What is the role of VCI?
5. What do you mean by error control?
6. What are the functions of bridges?
7. What is the size of Ethernet address?
8. What is the advantage of FDDI over a basic token ring?
9. List any two functions which a bridge cannot perform?
10. Mention the function of hub.
11. Mention different random access techniques?
12. List the two types of data frames in FDDI
13. What is the purpose of the NAV?
14. Name the four types of S frames.
15. What is the access method used by wireless LANs?
16 What are the limitations of bridges?
17. What is Spanning tree?
18 .Define Bluetooth?
19. What is the use of Switch?
20. What is token holding time (THT)?
21. Define Repeater?
22. What are the two classes of traffic in FDDI?
23. What are the four prominent wireless technologies?
24. Define IP
25. Define CIDR, ARP, DHCP,ICMP.

PART D
1. Write the CSMA/CD algorithms of Ethernet.
2. Explain in details about the access method and frame format used in Ethernet and token ring.
3. Name the four basic network topologies and explain them giving all the relevant features.
4. (i) Explain the working of carrier sense multiple access protocol.
(ii) How does a Token Ring LAN operates? Discuss.
(iii) List and briefly discuss the two different basic transmission technologies that can be used to set up wireless LAN's.
5. Explain the frame format, operation and ring maintenance feature of IEEE 802.5 MAC protocol.
6. Briefly define key requirements for wireless LANs.
7. Describe the FDDI frame format and explain.
8. Discuss the MAC layer functions of IEEE 802.11.
9. Explain in details the types of bridges.
10. Write in detail about Bluetooth Technology?

11. Difference between Wired network and Wireless Network.
12. Name the four basic network topologies and explain them giving all the relevant features.
13. How does work on functioning of wireless LAN in detail.
14. Discribe the Ip,Cidr, ARP, Basic Networking.
15. Define Switch and Routing Explain the how to connected the net work.

PART –E
1. List the difference between circuit switching and Packet switching.
2. What are the different kinds of Multicast Routing?
3. Discuss the class field in IP address.
4. What is meant by circuit switching?
5. What is multicasting?
6. What is a hostid and netid?
7. How does a netid differ from a network address?
8. What is the purpose of subnetting?
9. Define Masking.
10. What is the difference between boundary level masking and non-boundary level masking?
11. What is the function of router?
12. How does a router differ from a bridge?
13. Find the class of each address.
14. Why is adaptive routing superior to non adaptive routing?
15. What are the three main elements of distance vector algorithms.
16. What is address resolution?
17. What are the benefits of subnetting a network?
18. What are the metrics used by routing protocols?
19. Define RIP?
20. Define OSPF,Metrics?
21.Define Areas, BGP,?
22. What is multicast routing ?
23.What multicast address?
24.Different between DVMRP and ICMP?
25.What is switch?

PART F
1. Write the short on path algorithm with a suitable illustration.
2. Explain the distance vector routing algorithm.
3. Mention the limitations of distance vector routing algorithm.
4. Explain the building and distribution of link state packets in link state routing algorithm.
5. Mention the limitations of link state routing algorithm.
6. link state routing and discuss its advantages over distance vector routing.
7. Write the short on in details packet switching.
8. What are the different Datagram approach. And Explain ?
9. Explain in details IP addressing methods.

10. (i.) In classful addressing how is an IP address in class A, Class B and Class C divided?

(ii). Given the address 23.56.7.91 and the default class A mask, find the beginning address.

(iii.) Given the address 201.180.56.5 and the default class C mask, find the beginning address.

11. Discuss in detail the various aspects of IPV6.

12. What are the different approaches in Packet Switching.Explain them in detail.

13.Define multicasting and explain the detail about multicast address?

14. Difference between switching and routing?

15.(i) Write short notes on Broadcasting,

(ii)Write Short notes on DVMRP and PIM.