010.00111000

Subnet Mask Address 255.255.240.0 11111111.11111111.11110

000.00000000

Subnetwork Address 200.45.32.0 11001000.00101101.00100

000.00000000

The subnetwork address for the given is 200.45.32.0

5. Explain the IP addressing. (May June 2007)
6. Explain Bluetooth (802.15.1) in detail
7. (i) How is the looping problem solved by switches and by routers. How do switches/routers handle link failure?
8. Explain how bridges run a distributed spanning tree algorithm. (Dec 12)
9. Write short notes on bridges and switches (May 14)
10. Explain in detail about SONET (May 11, A/M'10)
11. (ii) Explain the working of Carrier Sense Multiple Access protocol (3) (Nov/Dec 2006)
    (iii) How does Token Ring LAN operate? Discuss (6) (Nov/Dec 2006)
    (iv) Lsit and briefly discuss the two different basic transmission technologies that can be used to set up wireless LAN's (4)
12. Discuss in detail about Wireless LAN MAC sublayer (8) (Nov/Dec 2008, 16M-N/D2010)
13. What are the two problems in wireless MAC sublayer (A/M'10)
14. Discuss any two error correction techniques in wireless links (10) (A/M'10)
15. With a suitable diagram explain briefly about (1) Virtual circuit switching (2) Datagram switching techniques. (10) (A/M'11)

UNIT 3

ROUTING

PART A

1. What kind of routing information do routers exchange among themselves while running distance vector algorithm? *In particular, briefly describe the format of the routing information that it exchanged. (May Jun 2007)*

Ans:

- *In distance vector algorithm, the routers exchange their routing table with other neighbor routers.*
- *The routing table consist information's on Network ID, Cost and Next Hop for the neighbours.*

2. Identify the class/speaciality of the following IP addresses: (May 2009)

a)110.34.56.45 b)127.1.1.1 c)212.208.63.23 d)255.255.255.255

a)110.34.56.45 - Class A

b)127.1.1.1 - Loop back address

c)212.208.63.23 - Class C

d)255.255.255.255 – Broadcast address

3. What is the purpose of Address Resolution Protocol(ARP)? (May 2009)

ARP is a dynamic mapping method that finds a physical address for a given logical address. i.e. mapping IP address to physical address.

4. What is multicasting? .(Nov Dec 2010)&(Nov Dec 2011)

Ans: Multicasting is a technical term that means that you can send a piece of data (a packet) to multiple sites at the same time. (How big a packet is depends on the protocols involved-it may range from a few bytes to a few thousand.) The usual way of moving information around the Internet is by using unicast protocols -- tools that send packets to one site at a time.

5. What are the different kinds of multicast routing? (May 2011)

Different kinds of multicast routing are reverse path multicasting and reverse path broadcasting.

6. Define subnetting. (May 2011)

Subnetting is a technique that allows a network administrator to divide one physical network into smaller logical networks and thus, control the flow of traffic for security or efficiency reasons.

7. What is multicast? What is the motivation for developing multicast? (May 2011)

Multicasting means delivering the same packet simultaneously to a group of clients. Motivation for developing multicast is that there are applications that want to send a packet to more than one destination hosts.

8. Expand and define MTU. (May 2012)

Maximum Transmission Unit. MTU is a networking term defines the largest packet size that can be sent over a network connection.

9. What are the salient features of IPV6? .(Nov Dec 2012)

Ans: The following are the features of the IPv6 protocol:

- *New header format*
- *Large address space*
- *Efficient and hierarchical addressing and routing infrastructure*
- *Stateless and stateful address configuration*
- *Built-in security*
- *Better support for quality of service (QoS)*
- *New protocol for neighboring node interaction*
- *Extensibility*

10. Define source routing. (Dec 2013)

All the information about the network topology is required to switch a packet across the network is provided by the source host. For switching that uses neither virtual circuits nor conventional datagrams is known as source routing.

11. What is the need of subnetting? (Dec 2013)

Subnetting divides one large network into several smaller ones. Subnetting adds an intermediate level of hierarchy in IP addressing.

12. List the two forms in whoich virtual circuit packet switching is implemented. (Nov/Dec 2006)

13. Which class does the following IP address belong to (Nov/Dec 2006)

14. Datagram organization of the network is similar to that of the services offered by the postal department. Justify this statement. (Nov/Dec 2009)

15. What is the significance of the IP addresses of the format 127.x.y.z? (Nov/Dec 2009)

20. What is the purpose of subnetting (Nov/Dec 2012)

21. What are the differences between classful addressing and classless addressing in IPv4? (Nov/Dec 2008)