CT1 QB CC - Question Bank

Computer Communications (SRM Institute of Science and Technology)

Question Bank - 18CSS202J – Computer Communications

Part – A - Multiple Choice Questions

Level of Understanding: *Easy*

Which of the following is not the possible ways of data exchange?
A. Simplex
B. Multiplex
C. Half Duplex
D. Full Duplex
ANSWER: B

If you use either Telnet or FDP, which is the highest layer to transmit the data?
A. Application layer
B. Presentation layer
C. Session layer
D. Network layer
ANSWER: A

Which layer is responsible for delivery process?
A. Network layer
B. Transport layer
C. Session layer
D. Data link layer
ANSWER: B

Which address identifies a process on a host?
A. physical address
B. logical address
C. port address
D. specific address
ANSWER: C

This layer is an addition to OSI model when compared with TCP/IP model.
A. Application layer
B. Presentation layer
C. Session layer
D. Both Session and Presentation layer
ANSWER: D

The data transfer rate is determined by
A. Network layer
B. Physical layer
C. Data link layer

D. Transport layer
ANSWER: B

Which of the following task is not performed by data link layer?
A. framing
B. error control
C. flow control
D. channel coding
ANSWER: D

Which layer provides the services to user?
A. Application layer
B. Session layer
C. Presentation layer
D. Physical layer
ANSWER: A

The network layer packet which contain the information used for error checking of the header is known as ------------
A. Frame
B. Datagram
C. Segment
D. Payload
ANSWER: B

Which network topology requires a central controller or hub?
A. Star
B. Mesh
C. Ring
D. Bus
ANSWER: A

Which topology has backbone to connect all the devices in the network?
A. Star
B. Mesh
C. Ring
D. Bus
ANSWER: D

The communication which takes place through blocks of data is known as
A. Datagram
B. Segment
C. Packet
D. Frame
ANSWER: C

The ----------- can store and forward the packet in the router
A. Queue
B. Stack
C. Frame
D. Packet
ANSWER: A

Which type of identifier is used in the network layer?
A. Message
B. Datagram
C. Frame
D. Bits
ANSWER: B

Which of the following is transport layer protocol used in networking?
A. UDP
B. HTTP
C. SMTP
D. ICMP
ANSWER: A

The protocol which is used for electronic mail service is ---------
A. HTTP
B. SMTP
C. FTP
D. UDP
ANSWER: B

Communication between computers is almost always
A. Serial
B. Parallel
C. Direct
D. Indirect
ANSWER: A

Which one of the following is not a function of network layer?
A. Routing
B. Inter-networking
C. Congestion control
D. Error control
ANSWER: D

A network subset that contains all the routers but no loops is called _____
A. Spanning tree
B. Spider structure
C. Spider tree
D. Special tree
ANSWER: A

The network layer protocol for internet is _____
A. Ethernet
B. Internet protocol
C. Hypertext transfer protocol
D. File transfer protocol
ANSWER: B

Level of Understanding: *Moderate*:

Which of the following statements may be related to OSI model?

A. A structured way to discuss and easier update system components
B. One layer can double the functionality of lower layer
C. Functionality at one layer does not require other layer information
D. It is a model of specific network application
ANSWER: C

User datagram protocol is called connectionless because
A. All UDP packets are processed separately by transport layer
B. It sends data as related packet stream
C. It is obtained in the same order as sent
D. It easily sends out the data
ANSWER: A

What is the total end-to-end delay in sending packet with 8 bits at a transmission rate of 4 bits /sec for 6 routers?
A. 6 s
B. 2 s
C. 12 s
D. 24 s
ANSWER: B

What is the transmission rate of the TDM, if the connection transmits 2000 frames per second and if every slot has 8 bits?
A. 16 Kbps
B. 16 bps
C. 250 bps
D. 250 Kbps
ANSWER: A

Which is an example of Personal Area Networking?
A. Bluetooth
B. Computer
C. Miicrophone
D. Cable TV
ANSWER: A

Congestion on the network has been triggered ----------
A. In the event of traffic overloading
B. When the system is terminated
C. When the connection terminate between two nodes
D. In the event of failure to transfer
ANSWER: A

If P is the only packet that is transmitted in a network, and there was no previous transmission, what delays may be zero of the following?
A. Propagation delay
B. Queuing delay
C. Transmission delay
D. Processing delay
ANSWER: B

Packets should not be retransmitted if -----------
A. Packet is lost

B. Packet has been corrupted
C. Packet is required
D. Packet is free from any errors
ANSWER: D

In which network configuration the data/ information passing via a central computer is star network?
A. Distributed
B. T-Switched
C. Ordered
D. Central
ANSWER: A

If a network switches to a transmission medium with a data rate 100 times faster, this would increase the network ------------
A. Performance
B. Reliability
C. Security
D. Longevity
ANSWER: A

Level of Understanding: *Difficult*

Network following 802.5 standards seem to be in a star topology but in which kind of topology do they actually operate?
A. Linear bus
B. Modified star
C. Modified ring
D. Ring
ANSWER: D

The main difference between synchronous and asynchronous transmission is
A. The clocking is derived from the data in synchronous transmission
B. The clocking is mixed with the data in asynchronous transmission
C. The pulse height is different.
D. The bandwidth required is different
ANSWER: A

If a group of computers are connected in a small area without telephone lines, they are named as,
A. Remote communication Network (RCN)
B. Local area network (LAN)
C. Wide area network (WAN)
D. Value added network (VAN)
ANSWER: B

The easiest way to interactively transfer data in a time sharing network is
A. Simplex lines
B. Half-duplex lines
C. Full-duplex lines
D. Biflex-line
ANSWER: B

Alice creates a small home network to study MCSE test in her home. She does not have much money to spend on hardware, so she wants to use a topology of the network that demands a minimum of hardware. Which topology would she choose?
A. Star
B. Bus
C. Token Ring
D. Ethernet
ANSWER: B

Which transmission systems give the highest data rate to an individual device?
A. Computer bus
B. Telephone lines
C. Voice band modem
D. Leased lines
ANSWER: A

Which of the following connectivity devices is used to extend a network on a purely mechanical basis?
A. Gateway
B. Switch
C. Router
D. Active Hub
ANSWER: D

Part – B (4 Marks)

1. Identify the five components of a data communications system.
2. What are the three criteria necessary for an effective and efficient network?
3. What are the advantages of a multipoint connection over a point-to-point one?
4. What are the two types of line configuration?
5. Categorize the four basic topologies in terms of line configuration.
6. What is the difference between half-duplex and full-duplex transmission modes?
7. Name the four basic network topologies, and cite an advantage of each type.
8. For n devices in a network, what is the number of cable links required for a mesh, ring, bus, and star topology?
9. What are some of the factors that determine whether a communication system is a LAN or WAN?
10. Define the term Computer Network
11. Define PROTOCOL
12. Write about protocol and standards.
13. Compare OSI and TCP/IP model.
14. List the classification of computer networks with its advantage and disadvantage.
15. Summarize the functions of OSI reference model.
16. Write the features of TCP/IP protocol.
17. List the difference between circuit switching and pocket switching
18. Draw an example network structure for tree and bus topology.
19. Give the key elements of protocol.
20. Give an advantage for each type of network topology.
21. Define transmission mode and its types.
22. List the layers of OSI model.

23. Define OSI model
24. Which OSI layers are the network support layers?
25. Which OSI layers are the user support layers?
26. What are the responsibilities of physical layer, data link layer, network layer, transport layer, session layer, presentation layer, application layer.
27. Name some services provided by the application layer
28. Identify the five components of a data communications system
29. What are the three criteria necessary for an effective and efficient network?
30. Compare OSI and TCP/IP model.
31. List the classification of computer networks with its advantage and disadvantage.
32. Write short notes on HDLC.
33. Discuss briefly about connection oriented and connectionless services.
34. Write short notes on the physical layer of Ethernet.
35. Write short notes about SNMP.
36. Write short notes on error in control mechanism.
37. Write about circuit switched network.

Part – C (12 Marks)

1. Discuss the various layers of ISO OSI model.
2. Explain the different types of switching techniques with neat diagram
3. With a neat diagram, explain in detail about various types of network topologies.
4. Write about protocols and standards.
5. Explain the functions of network layer and transport layer.
6. Describe the network layer protocols and transport layer protocol.
7. Explain the methods of transmission of data between two computers.