

Question Bank - 18CSS202J – Computer Communications

Unit 1

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. Microphone
- 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. Define protocol and standards.
10. Write the features of TCP/IP protocol.
11. List the difference between circuit switching and packet switching
12. Draw an example network structure for tree and bus topology.
13. Give the key elements of protocol.
14. Give an advantage for each type of network topology.
15. Define transmission mode and its types.
16. List the layers of OSI model.
17. Name some services provided by the application layer
18. What are the three criteria necessary for an effective and efficient network?
19. Compare OSI and TCP/IP model.
20. Write short notes on HDLC.
21. Discuss briefly about connection oriented and connectionless services.
22. Write short notes about SNMP.
23. 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.