

CNS Questions Bank

1) A LAN (Local Area Network) can cover a distance of ____ KM.

- A) 2
- B) 8
- C) 16
- D) 32

View Answer :

A

Explanation:

Even less than 2 km.

2) Multiple LANs can be connected to form a single MAN (Metropolitan Area Network). State TRUE/FALSE.

- A) TRUE
- B) FALSE
- C) -
- D) -

View Answer :

A

3) Cost of owning a LAN network over a WAN or MAN is ____.

- A) Less
- B) More
- C) -
- D) -

View Answer :

A

4) To form a WAN or MAN network, public networks can be used in between. State TRUE or FALSE.

- A) TRUE
- B) FALSE
- C) -
- D) -

View Answer :

A

5) The types of transmission channel or media used for LAN or WAN are ____.

- A) Twisted Pair Cables
- B) Coaxial Cables
- C) Fiber-Optic Cables and Radio Waves
- D) All the above

View Answer :

D

6) Which cable between Twisted-Pair-Cable (TPC) and Coaxial-Cable (CC) work for transmitting data to more distances?

- A) Twisted Pair Cable
- B) Coaxial Cable
- C) -
- D) -

View Answer :

B

7) Cable TV network cables laid till your are house are ___ cables.

A) Twisted Pair cables

B) Coaxial cables

C) -

D) -

View Answer :

B

Explanation:

These cables carry more data for longer distances

8) Which trasmission media is easy to install inside a city to create a network quickly?

A) Cable media (TPC or CC)

B) Fiber Optic

C) Radio Frequency devices

D) All

View Answer :

C

Explanation:

All telecom operators use RF devices in places where laying of copper cables or Optical Fiber cables are difficult due to permissions from local authorities.

9) Which is the transmission media that can carry huge data to large distances with less delay or latency?

- A) Wireless or RF or Microwave Frequency
- B) Coaxial Cables
- C) Optical Fiber Cables
- D) Twiste Pair Cables

View Answer :

C

Explanation:

It transmits data in the form of light. So, if the end to end system is replaced with an advanced technology one, the whole system bandwidth can be increased instantly.

10) Which type of network supports transmitting voice, video and data?

- A) LAN
- B) MAN
- C) WAN
- D) All the above

View Answer :

D

Explanation:

LAN, MAN and WAN networks are classified only the distance basis but not on the type of data those carry.

11) The largest WAN existing on this earth is ____.

- A) Extranet
- B) Internet
- C) ARPANET
- D) SONET

View Answer :

B

Explanation:

SONET and ARPANET are technologies used to deploy a WAN.

12) The technologies used in a WAN network are ____.

- A) SONET
- B) Frame Relay
- C) ATM
- D) All the above

View Answer :

D

13) The main hardware used to access a LAN resource is ____.

- A) Motherboard
- B) NIU (Network Interface Unit) or NIC (Network Interface Card)
- C) RAM
- D) Hard disk

View Answer :

B

Explanation:

NIC card contains ports to connect RJ45 LAN cables, Coaxial cables and Optical cables.

14) The three main services used in a LAN are ____.

- A) File Server
- B) Print Server
- C) Modem Server (Sharing Internet)
- D) All the above

View Answer :

D

15) Choose a LAN operating system from the below list.

- A) Ethernet, LAN Server
- B) Novel Netware, Curves, ArcNet
- C) Omni Net, PC Net, IBM PC LAN, Etherlink Plus
- D) All the above

View Answer :

D

Explanation:

LAN OS is loaded onto both server and workstation. It is just a software provided on CD when you purchase a NIC Card or simply LAN card.

Most of the motherboards are shipped with an inbuild LAN card.

16) A Hub and Switch are ____ devices.

- A) LAN
- B) WAN
- C) MAN
- D) None

View Answer :

A

17) Choose a WAN device from the below list.

- A) Bridge
- B) Router
- C) Gateway
- D) All the above

View Answer :

D

Explanation:

All these devices are efficient in routing packets to a path between two devices or computers.

18) A network Hub is a device that transmits or copies the same packet too ___ ports except the receiving port at that instance.

- A) few
- B) all
- C) selective
- D) None

View Answer :

B

19) A network hub works at ___ layer of OSI reference model.

- A) layer 1
- B) layer 2
- C) layer 3
- D) layer 4

View Answer :

A

Explanation:

Yes. A Hub works at Physical layer or Layer 1.

20) A network Switch works more or like a Hub except that it ____ packets to destination device and filters forwarding to remaining ports or devices.

- A) forwards
- B) filters
- C) duplicates
- D) None

View Answer :

A

21) A network Bridge device connects two or more networks to form a ____ LAN network.

- A) Single
- B) Duplicate
- C) Multi
- D) None

View Answer :

A

Explanation:

A Bridge device maintains a table of frames with destination addresses. Data frames can even be stored (buffering) and forwarded during busy times.

22) The acronym OSI stands for ____ in computer networking.

- A) Organization for Standards Institute
- B) Open Systems Interconnection
- C) Organizing Systems Interconnection
- D) Open Systems Interworking

View Answer :

B

Explanation:

OSI refers to Open Systems for Interconnection.

23) Who developed standards for the OSI reference model?

- A) ANSI - American National Standards Institute
- B) ISO - International Standards Organization
- C) IEEE - Institute of Electrical and Electronics Engineers
- D) ACM - Association for Computing Machinery

View Answer :

B

Explanation:

Yes. It is ISO (International Standards Organization) that developed standards for operating OSI model layers in the year 1984.

24) How many layers are there in the OSI reference model of networking?

- A) 5
- B) 6
- C) 7
- D) 8

View Answer :

C

Explanation:

7 Layers in total.

25) Each layer of the OSI model receives services or data from a ____ layer.

- A) below layer
- B) above layer
- C) -
- D) -

View Answer :

A

Explanation:

Layers receive data or services from the below layers.

26) In the OSI model, each layer gives services or data to the ___ layer.

- A) below
- B) above
- C) -
- D) -

View Answer :

B

Explanation:

In other words, the upper layers always receive services or data from the below layers.

27) A layer of the OSI model on one system communicates with the ____ layer of its peer system.

- A) above
- B) below
- C) same
- D) None

View Answer :

C

Explanation:

So, any given OSI layer can communicate with the same layer of its peer node.

28) Choose the correct layer numbers and names of the OSI model below.

- A) Layer 7 - Application Layer, Layer 6 - Presentation Layer
- B) Layer 5 - Session Layer, Layer 4 - Transport Layer
- C) Layer 3 - Network Layer, Layer 2 - Data Link Layer, Layer 1 - Physical Layer
- D) All the above.

View Answer :

D

Explanation:

The matching order is as follows. Layer 7 = Application Layer, Layer 6 = Presentation Layer, Layer 5 = Session Layer, Layer 4 = Transport Layer, Layer 3 = Network Layer, Layer 2 = Data Link Layer, Layer 1 = Physical Layer.

29) In an OSI model, the lowest layer is the ____ layer.

- A) Application Layer
- B) Physical Layer
- C) Presentation Layer
- D) Data Link Layer

View Answer :

B

Explanation:

Yes, the Physical layer is the lowest.

30) In the OSI model, which is the highest layer?

- A) Application Layer
- B) Physical Layer
- C) Presentation Layer
- D) Network Layer

View Answer :

A

Explanation:

Yes, the Application Layer or Layer-7 is the highest layer.

31) In the OSI model, the bottom 3 layers assist in ____.

- A) converting data
- B) transporting data
- C) -
- D) -

View Answer :

B

Explanation:

It is because of the bottom 3 layers of OSI, the data gets transferred from one node to another through the network.

32) What are the advantages of 7 layers of OSI model?

- A) Troubleshooting the network is easy.
- B) Developing new functions or services for a particular layer is easy.
- C) Developing hardware devices targeting certain layers is easy because the services to be offered are fixed.
- D) All the above

View Answer :

D

33) A set of standards that define how to communicate with each layer of the OSI model are ____.

- A) functions
- B) protocols
- C) data formats
- D) All the above.

View Answer :

D

34) The layer that transmits data in the form of bit streams using electrical and mechanical systems is ____ in the OSI model.

- A) Physical layer
- B) Data Link Layer
- C) Network Layer
- D) Transport Layer

View Answer :

A

Explanation:

Physical Layer

35) The physical layer involves ____

- A) Optical, electrical and mechanical properties
- B) Voltage levels, timing and frequency
- C) Physical connections
- D) All the above

View Answer :

D

36) Which is the layer that converts Packets to Frames and Frames to Packets in the OSI model?

- A) Physical Layer
- B) Data Link Layer
- C) Network Layer
- D) Transport Layer

View Answer :

C

Explanation:

Network Layer

37) Which is the layer that converts Raw Bits to Frames and Frames to Raw Bits in the OSI model?

- A) Physical Layer
- B) Data Link Layer
- C) Network Layer
- D) Transport Layer

View Answer :

B

Explanation:

Data Link Layer

38) A Data Link Layer converts a packet of data into ___ finally.

A) Frames

B) Bits

C) -

D) -

View Answer :

B

Explanation:

Yes. The data link layer takes packets from Network Layer and converts to Bits before handing over to the Physical layer.

39) The two sub-layers of a Data Link layer are ____.

A) LLC - Logical Link Control Layer

B) MAC - Medium Access Control Layer

C) Both A and B

D) Data Layer

View Answer :

C

Explanation:

LLC (Logical Link Control) layer and MAC (Medium Access Control) layer

40) Which is the sub-layer that accepts frames from the upper layer that is Network Layer?

- A) LLC (Logical Link Control Layer)
- B) MAC (Medium Access Control) layer
- C) -
- D) -

View Answer :

A

Explanation:

The LLC layer receives frames the Network layer. It is topology independent.

41) The functions of a Logical Link Layer (LLC) are ____.

- A) Error control
- B) Flow control
- C) Creating and managing the communication link between two devices with the help of the Transport layer.
- D) All the above

View Answer :

D

42) The types of data services offered by an LLC (Logical Link Control) layer are ____.

- A) Connectionless which is fast and unreliable
- B) Connection-Oriented which is slow and reliable
- C) Both OptionA and optionB.
- D) None

View Answer :

C

43) Which is the layer that is responsible for sharing the physical media (transmission medium) among many computers or devices?

- A) LLC (Logical Link Control) layer
- B) MAC (Medium Access Control) layer
- C) -
- D) -

View Answer :

B

Explanation:

Medium Access Control (MAC) layer which is a sub-layer of the LLC (Logical Link Control) layer actually shares the physical transmission medium among many devices.

44) Every Computer or an Internet device has a unique MAC address. State TRUE/FALSE.

- A) TRUE
- B) FALSE
- C) -
- D) -

View Answer :

A

Explanation:

The manufacturers of internet accessing devices hard code unique MAC addresses into each device.

45) The types of Medium Access Control are ____.

- A) Centrally Access Control
- B) Distributed Access Control
- C) Both option-A and option-B
- D) None

View Answer :

C

46) The modes of a MAC to share a transmission medium are ____.

- A) Round Robin
- B) Reservation
- C) Contention
- D) All the above

View Answer :

D

Explanation:

Round Robin, Reservation and Contention are the three modes of sharing the access medium used by MAC protocol.

47) In Reservation mode of MAC, each station in the network ____ a time slot for a finite or infinite amount of time to access the shared medium.

- A) should reserve
- B) need not reserve
- C) -
- D) -

View Answer :

A

Explanation:

Whichever station reserves a time-slot first, it will get full access to the medium. The remaining stations simply wait and poll continuously for next time reservation token.

48) In a contention mode of MAC implementation, each station in the network ____ data at the same time whether a collision occurs or not.

- A) can transmit
- B) can not transmit
- C) -
- D) -

View Answer :

A

49) In a Contention mode of MAC implementation, different stations can have different priorities set by the admin. State TRUE/FALSE.

- A) TRUE
- B) FALSE
- C) -
- D) -

View Answer :

A

Explanation:

All stations in the equal priority group compete again to transmit data simultaneously without thinking about collisions or bottlenecks or congestions.

50) The physical address to each machine is provided by which layer in an OSI reference model?

- A) Physical layer
- B) Data Link Layer
- C) Network Layer
- D) Transport Layer

View Answer :

B

Explanation:

The sub-layer of Data Link Control Layer, MAC (Medium Access Control) layer, provides the physical address like MAC address.

51. In the sliding window method of flow control, the receiver window size when frames are received

- A. increases in
- B. decreases in
- C. doubles in
- D. remains its original

View Answer

B. decreases in

52. In the sliding window method of flow control, the receiver window. size when an ACK is sent

- A. increases in
- B. decreases in
- C. doubles in
- D. remains its original

View Answer

A. increases in

53. The receiver's window in a sliding window protocol expands when

- A. an ACK is received
- B. an ACK is sent
- C. a frame is sent
- D. a frame is received

View Answer

- B. an ACK is sent

54. The sender's window in a sliding window protocol expands when

- A. an ACK is received
- B. an ACK is sent
- C. a frame is sent
- D. a frame is received

View Answer

- A. an ACK is received

55. The stop-and-wait flow control method is the same as the sliding window method with a window size of

- A. 0
- B. 1
- C. 2
- D. none of the above

View Answer

- B. 1

56. Flow control is mainly a function of the _____ layer

- A. application
- B. presentation
- C. session
- D. data link

View Answer

D. data link

57. Stop-and-wait is a _____ technique

- A. line discipline
- B. flow control
- C. error control
- D. session management

View Answer

B. flow control

58. Sliding window is a _____ technique

- A. line discipline
- B. flow control.
- C. error control
- D. session management

View Answer

B. flow control

59. In the stop-and-wait method of flow control, the sender sends _____ at a time

- A. a variable number of frames
- B. only one frame
- C. a set number of frames
- D. two frames

View Answer

B. only one frame

60. In the stop-and-wait method of flow control, after the receiver receives a data frame, _____ frame can be sent

- A. an ACK
- B. a NAK
- C. an EOT
- D. a or b

View Answer

D. a or b

1. Which of the following is not a network type ?

- a) LAN
- b) WAN
- c) MAN
- d) TAN

Answer : d) TAN

2. Which of the following protocols uses both TCP and UDP?

- a) FTP
- b) SMTP
- c) Telnet
- d) DNS

Answer : d) DNS

3. TCP/IP layer is equivalent to combined Session, Presentation and _____

- a) Network layer
- b) Application layer
- c) Transport layer

d) Physical layer

Answer : b) Application layer

4. How many levels of addressing is provided in TCP/IP protocol?

a) One

b) Two

c) Three

d) Four

Answer : d) Four

5. A device operating at physical layer is called _____

a) Router

b) Equalizer

c) Bridge

d) Repeater

Answer : d) Repeater

6. Network Security provides authentication and access control for resources.

a) True

b) False

Answer : a) True

7. Which is not an objective of network security?

a) Identification

b) Authentication

c) Access control

d) Lock

Answer : d) Lock

8. Which layer does not belong to OSI Reference Model ?

a) Session Layer

b) Network Layer

c) Data Link Layer

d) Internet Layer

Answer : d) Internet Layer

9. TCP/IP is related to _____

a) ARPANET

b) OSI

c) DECNET

d) ALOHA

Answer : a) ARPANET

10. The DoD model has four layers. Which layer of the DoD model is equivalent to the Network layer of the OSI model?

a) Application

b) Host to Host

c) Internet

d) Network Access

Answer : c) Internet

11. What is the full form of FHSS ?

a) Frequency Hopping Sequence Spectrum

b) Frequency Hopping Spread Spectrum

c) Frequency High Spread Spectrum

d) Frequency Hidden Sequence Spectrum

Answer : b) Frequency Hopping Spread Spectrum

12. Direct Sequence Spread Spectrum (DSSS) uses the data rate of

- a) 1 or 2 Mbps
- b) 6 to 54 Mbps
- c) 5.5 and 11 Mbps
- d) 2 and 54 Mbps

Answer : a) 1 or 2 Mbps

13. _____ can copy the packets from one connection to the other, reformatting them as need be.

- a) Email Gateway
- b) Application Gateway
- c) Transport Gateway
- d) Internet Gateway

Answer : c) Transport Gateway

14. Which is the type of Network Topology ?

- a) Mesh Topology
- b) Hybrid Topology

- c) Tree Topology
- d) All of the above

Answer : d) All of the above

15. In a peer-to-peer system there are _____

- a) Fixed clients
- b) No fixed clients and servers
- c) Fixed servers
- d) Central database

Answer : b) no fixed clients and servers

16. The function of the data link layer is to provide services to the _____

- a) Network layer
- b) Data Link layer
- c) Transport layer
- d) Application layer

Answer : a) Network layer

17. Protocols in which the sender waits for a positive acknowledgement before advancing to the next data item are called

- a) PAR
- b) ARQ
- c) Both a & b
- d) AQR

Answer : c) both a & b

18. The data link layer takes the packets it gets from the network layer and encapsulates them into _____ for transmission.

- a) Frames
- b) Frame header
- c) Frame trailer
- d) Payload field

Answer : a) frames

19. _____ is a more efficient way to do error detection and correction.

- a) Hamming code
- b) Reed Solomon code

- c) All of the above
- d) None of the above

Answer : c) all of the above

20. The Ethernet and other LANs have their CRCs in a _____

- a) Trailer
- b) Header
- c) Payload
- d) Padding

Answer : a) trailer

21. _____ has the ability of the receiving network layer to process incoming data infinitely quickly.

- a) Unrestricted Simplex Protocol
- b) Simplex Stop and Wait Protocol
- c) Sliding Window Protocol
- d) Elementary Data Link Protocol

Answer : b) Simplex Stop and Wait Protocol

22. _____ is the data link protocol used to connect home computers to the Internet.

- a) HDLC
- b) SDLC
- c) HPP
- d) PPP

Answer : d) PPP

23. _____ does not require global time synchronization

- a) Pure ALOHA
- b) Slotted ALOHA
- c) CSMA/CD
- d) CSMA/CA

Answer : a) Pure ALOHA

24. _____ is a not a carrier sense protocol.

- a) 1 – persistent
- b) 2 – persistent
- c) Non – persistent

d) P – persistent

Answer : b) 2 – persistent

25. WDMA protocols have

- a) Only one control channel
- b) Multiple control channels
- c) Propagation delay into account
- d) All of the above

Answer : d) all of the above

26. High speed ethernet works on _____

- a) Coaxial cable
- b) Twisted pair cable
- c) Optical fiber
- d) Unshielded twisted pair cable

Answer : c) optical fiber

27. The IEEE 802 project of the 1980s involved further defining the lower two layers of the OSI model. A number of standards were agreed upon during that time. Which of the following is the standard for Ethernet?

- a) 802.2
- b) 802.3
- c) 802.4
- d) 802.5

Answer : b) 802.3

28. A and B are the only two stations on an Ethernet. Each has a steady queue of frames to send. Both A and B attempt to transmit a frame, collide, and A wins the first backoff race. At the end of this successful transmission by A, both A and B attempt to transmit and collide. The probability that A wins the second backoff race is

- a) 0.5
- b) 0.625
- c) 0.75
- d) 1.0

Answer : b) 0.625

29. IEEE has defined the specifications of a wireless LAN called _____, which covers the data link layers and physical layers.

- a) IEEE 802.3
- b) IEEE 802.5

c) IEEE 802.11

d) IEEE 802.2

Answer : c) IEEE 802.11

30. The access method in Bluetooth is _____

a) FDMA

b) TDD-TDMA

c) CDMA

d) None of the above

Answer : b) TDD-TDMA