Question # 8 of 10 (Start time: 05:07:41 PM, 07 January 2025)

_____are used to exchange session management and control information between connected devices.

Select the correct option

- S-frames
- I-frames
- N-frames
- U-frames

CS601 - Data Communication (Quiz No. 4)

Question # 9 of 10 (Start time: 05:08:22 PM, 07 January 2025)

_____ is an Authentication Protocol, which uses two-step process to authenticate user information.

Select the correct option

- PAP
- LCP
- CHAP
- ICMP

High-Level Data Link Control (HDLC) defines three types of frames to deal with the transfer modes:

1. **Information (I) Frame** – Used for data transfer between devices.
2. **Supervisory (S) Frame** – Used for control purposes, such as flow control and error reporting.
3. **Unnumbered (U) Frame** – Used for management and control purposes, such as session initiation and termination.

In case of higher data rate, the number of impacted bits will be [redacted]

Select the correct option

Normal

Zero

Lower

Higher

The correct answer is: **Higher.**

In the case of a higher data rate, the number of impacted bits will be **higher.** This is because more bits are being transmitted per unit of time, so the same duration of noise will affect a larger number of bits.

Question # 6 of 10 (Start time: 05:06:27 PM, 07 January 2025)

High-Level Data Link Control (HDLC) defines _____ types of frames to deal with the transfer modes.

Select the correct option

- ○ Four
- ○ Six
- ◉ Three
- ○ Two

High-Level Data Link Control (HDLC) defines three types of frames to deal with transfer modes: **information frames (I-frames), supervisory frames (S-frames), and unnumbered frames (U-frames)**.

Explanation

Information frames (I-frames)

Used to transmit user data from the network layer. I-frames also contain error control information and control fields.

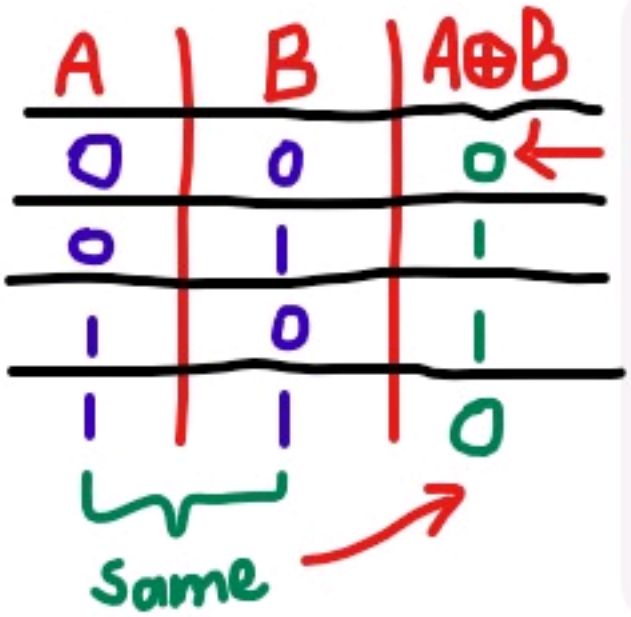
Supervisory frames (S-frames)

Used to transmit error and flow control data when it's not possible to "piggyback" on transmitted data. S-frames don't contain information fields.

Unnumbered frames (U-frames)

Used for miscellaneous purposes, including link management. Some U-frames contain information fields, and others do not.

HDLC is a group of protocols that organize data into frames and transmit them across a network. The destination verifies that the frames arrive successfully.



In order to find Hamming distance between two pair of words, __ logical operation is used

Select the correct option

AND

XOR

NAND

OR

The correct answer is: **XOR.**

To find the **Hamming distance** between two words, the **XOR** (exclusive OR) logical operation is used. The XOR operation compares the corresponding bits of the two words, and for each pair of bits, it outputs 1 if the bits are different, and 0 if they are the same. The number of 1s in the result gives the **Hamming distance**, which is the number of bit positions in which the two words differ.

Question # 4 of 10 (Start time: 05:04:52 PM, 07 January 2025)

If we increase the data rate of a transmission over noisy channel, fixed noise duration will cause _____ number of bits being impacted by the noise.

Select the correct option

- Constant
- Same
- [redacted]
- Loss

Question # 2 of 10 (Start time: 05:02:41 PM, 07 January 2025)

In block coding, how is the length of codewords (n) related to the length of data words (k)?

Select the correct option

○	$n = k$
○	$n = 2k$
●	$n > k$
○	$n < k$

Question # 1 of 10 (Start time: 05:01:16 PM, 07 January 2025)

Error correction is more _____ than the error detection.

Select the correct option

- (●) Difficult
- ( ) Easy
- ( ) Informal
- ( ) Useless

Question # 3 of 10 (Start time: 05:04:08 PM, 07 January 2025)

_____ is an Authentication Protocol, which is used by the PPP to authenticate passwords.

Select the correct option

- ○ LCP
- ○ ICMP
- ○ CHAP
- ○ PAP

congestion control is a feature of ___ layer.

Congestion control is a feature of the **Transport** layer.

In the **Transport layer** (Layer 4 of the OSI model), protocols like **TCP (Transmission Control Protocol)** implement congestion control mechanisms to prevent network overload by adjusting the data transmission rate based on network conditions.

Thus, the correct answer is: **Transport layer.**

Wireless transmission can be divided into _____ broad groups.

Wireless transmission can be divided into **three** broad groups:

1. **Radio Waves** – Used for long-distance communication such as AM/FM radio, mobile phones, and Wi-Fi.
2. **Microwaves** – Used for point-to-point communication such as satellite links, Bluetooth, and radar systems.
3. **Infrared Waves** – Used for short-range communication such as TV remote controls and some wireless sensors.

Question # 10 of 10 (Start time: 05:45:39 PM, 31 December 2024)

Among the following cables given below, _____cable provides highest bandwidth and less attenuation.

Select the correct option

○	Coaxial cable
◉	Fiber optical
○	STP
○	UTP

Virtual-Circuit Networks and datagram networks are the sub categories of _____ .
Select the correct option
Packet-switched networks
Both circuit and message switched networks
Circuit switched networks
Message switched networks

The correct answer is: **Packet-switched networks**.

Virtual-Circuit Networks and **Datagram Networks** are both subcategories of **Packet-switched networks**, where data is broken into packets for transmission.

- **Virtual-Circuit Networks:** Establish a logical path before data transmission (e.g., ATM, Frame Relay).
- **Datagram Networks:** Each packet is treated independently and may take different paths (e.g., the Internet using IP).

Difference between UTP STP Coaxial and Fiber Optic Cable

Characteristics	UTP	STP	Coaxial Cables	Fiber Optic Cables
Bandwidth	10 Mbps – 100 Mbps	10 Mbps – 100 Mbps	10 Mbps	100 Mbps -1 Gbps
Maximum cable segment	100 meters	100 meters	200 – 500 meters	2 k.m. – 100 k.m.
Interference rating	Poor	Better than UTP	Better than Twisted Pair Cable	Very good as compared to any other cable
Installation cost	Cheap	Costly than UTP	Costlier than twisted pair wires	Costliest to install
Bend radius	360 degrees / feet	360 degrees / feet	360 degrees / feet or 30 degrees / feet	30 degrees / feet
Security	Low	Low	Low	High

Differences:-

Circuit Switching Vs Packet Switching

Circuit Switching	Packet Switching
Physical path between source and destination	No physical path
All packets use same path	Packets travel independently
Reserve the entire bandwidth in advance	Does not reserve
Bandwidth Wastage	No Bandwidth wastage
No store and forward transmission	Supports store and forward transmission

Circuit Switching	Packet Switching
Connection Oriented	Connection Less
Entire Message Have to follow same route during transmission	Entire Message can be divided and routed Independently
Implemented at Physical Layer	Implemented at Network Layer
Waste of bandwidth if Idle	No Waste of bandwidth if Idle
Initially designed for Voice Transmission	Initially designed for Data Transmission

Parity Bit

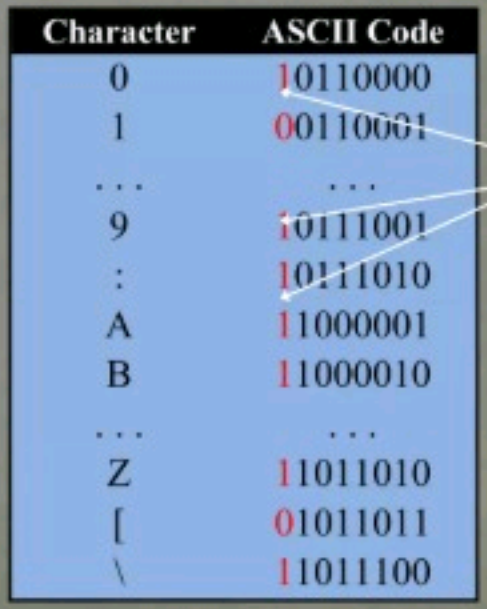
- ASCII code may have an extra bit appended to detect data transmission errors
  - P = 0 if the number of 1s in the character is even, else P = 1 (even parity)
  - P = 0 if the number of 1s in the character is odd, else P = 1 (odd parity)
- If any single bit changes, parity will be wrong at receive end

	Even parity	Odd parity
ASCII A = 1000001	01000001	11000001
ASCII T = 1010100	11010100	01010100

ERROR DETECTION

- Parity bit
  - Even parity: additional bit added to make total number of 1's even.
  - Odd parity: additional bit added to make total number of 1's odd.
- Example of odd parity on ASCII values.

Character	ASCII Code
0	10110000
1	00110001
. . .	. . .
9	10111001
:	10111010
A	11000001
B	11000010
. . .	. . .
Z	11011010
[	01011011
\	11011100



Question # 5 of 10 (Start time: 05:42:58 PM, 31 December 2024)

In unidirectional antenna, the common point where all the lines intersect each other is _____.

Select the correct option

- Center
- Focus
- Origin
- Axis

Data Link layer provides sevices to the ____ layer.
Select the correct option
Session
Transport
Network
Application

The correct answer is: **Network**.

The **Data Link layer** provides services to the **Network layer** by ensuring reliable data transfer over a physical link, handling error detection, and framing.

Data Link layer is divided into ____ sub layer.

The **Data Link layer** is divided into **two** sublayers:

1. **Logical Link Control (LLC) Sublayer** – Handles error control, flow control, and framing.
2. **Media Access Control (MAC) Sublayer** – Manages access to the physical transmission medium and hardware addressing (such as MAC addresses).

So, the correct answer is: **2 sublayers.**

Question # 7 of 10 (Start time: 05:44:17 PM, 31 December 2024)

Wireless transmission can be divided into _____ broad groups.

Select the correct option

- Three
- Two
- Four
- Five

Question # 6 of 10 (Start time: 05:43:36 PM, 31 December 2024)

Congestion Control is a feature of _____ layer(s).

Select the correct option

- ○ Data Link
- ○ All mentioned
- ○ Transport
- ○ Network

Virtual Circuit Identifier is the ____ of packet.
Select the correct option
Length
Size
Header
Address

3/3

The correct answer is: **Header**.

Virtual Circuit Identifier (VCI) is part of the **header** of a packet in a virtual circuit network. It helps in identifying the virtual connection to ensure proper delivery of packets within the network.

In datagram network, each data packet contains is_____
Select the correct option
Name
ID
Number
Address

In a datagram network, each data packet contains its **Address.**

The correct option is: **Address.**

This address helps the packet reach the correct destination in a connectionless communication system like the Internet (using protocols such as IP).

Question # 2 of 10 (Start time: 01:33:30 PM, 27 November 2024)

Manchester and differential Manchester encoding schemes are subtypes of _____ encoding scheme.

Select the correct option

- ○ Uni-polar
- ○ Multilevel
- ○ NRZ
- ◉ Bi-phase

Question # 3 of 10 (Start time: 03:42:09 PM, 14 November 2024)

A small home based network comprising of four computers directly connected with each other is an example of _____.

Select the correct option

○	Metropolitan Area Network
○	Wide Area Network
◉	Local Area Network
○	Internetwork

Question # 7 of 10 (Start time: 03:44:03 PM, 14 November 2024)

_____is Shannon capacity formula to determine highest theoretically data rate for a noisy channel.

Select the correct option

○	Capacity=Bandwidth*log2(2+SNR)
○	Capacity=Bandwidth*(1+SNR)
○	Capacity=Bandwidth*log2(SNR)
●	Capacity=Bandwidth*log2(1+SNR)

Question # 8 of 10 (Start time: 03:44:46 PM, 14 November 2024)

_____ is an example of transmitter.

Select the correct option

○	Hub
○	Work station
◉	Modem
○	Server

Question # 2 of 10 (Start time: 03:41:47 PM, 14 November 2024)

At the Application layer, object/information is in the form of _____.

Select the correct option

○	Packet
○	Segment
○	Frame
◉	Message

Question # 10 of 10 (Start time: 04:58:17 PM, 14 November 2024)

Identify the correct formula to calculate Propagation time.

Select the correct option

- Propagation time = Bandwidth / (Propagation Speed)
- Propagation time = Delay / (Propagation Speed)
- Propagation time = Distance / (Propagation Speed)
- Propagation time = throughput / (Propagation Speed)

Select the correct option

◉	All of the given
○	Reservation
○	Polling
○	Token Passing

Question # 9 of 20 (Start time: 11:06:09 PM, 28 January 2023)

In _____, each station is forced to send a frame only at beginning of time slot.

Select the correct option

- Slotted ALOHA
- Pure ALOHA

Question # 10 of 20 (Start time: 11:07:40 PM, 28 January 2023)

Which one of the following is a correct controlled-access method?

Select the correct option

◉	All of the given
	Reservation

328. Electromagnetic waves ranging in frequencies between 1 and 300 GHz are called _____.

Microwaves

329. If we increase the data rate of a transmission over noisy channel, fixed noise duration will cause _____ number of bits being impacted by the noise.

Less

330. In case of higher data rate, the number of impacted bits will be _____.

Higher

331. In baseband transmission, a digital signal is transmitted as_____.

Analog signal....confirm from net

332. Fib

333. The [illegible] bits using a spreading code

Question # 13 of 20 (Start time: 10:28:00 PM, 28 January 2023)

In Block coding scheme, number of code words is always _____ data words.

Equal to

Select the correct option

Greater than

CS601 - Data Communication (Quiz 3)

Question # 17 of 20 (Start time: 10:30:44 PM, 28 January 2023)

Payload field of the PPP frame is of variable size and it can carry maximum data up to _____.

Select the correct option

- 500 bytes
- 1500 bytes
- 10 bytes
- 100 bytes

Question # 5 of 20 (Start time: 11:02:33 PM, 28 January 2023)

FF:FF:FF:FF:FF:FF is a _____ link layer address.

Select the correct option

- Broadcast
- Subnet mask

00:29:02

16. In _____, a signal is directed straight from antenna to antenna.

1. Line of sight propagation
2. Ground propagation
3. Space propagation
4. Tropospheric propagation

17. _____ is responsible for governing node to node communication.

1. Application Layer
2. Session Layer
3. Data Link layer
4. Presentation Layer

18. If duration of noise is decreased during a transmission over noisy

CS601 - Data Communication (Quiz 3) **Quiz Start Time: 10:17 PM, 28 Janu**

Question # 11 of 20 (Start time: 10:27:07 PM, 28 January 2023) **Total**

If duration of noise is decreased during a transmission over noisy channel, fixed data rate of the channel will cause _____ number of bits being impacted by the noise.

Select the correct option

- Less
- Constant
- More

Question # 12 of 20 (Start time: 10:27:32 PM, 28 January 2023)

Data link layer is responsible for governing node to node communication.

Select the correct option

- Session Layer

CS601 - Data Communication (Quiz 3)

Question # 8 of 20 (Start time: 10:23:55 PM, 28 January 202)

In Linear Block codes, _____ of two valid code words creates another valid code word.

Select the correct option

- (●) XOR
- ( ) NOR
- ( ) OR

Question # 9 of 20 (Start time: 10:24:26 PM, 28 January 2023)

The type of ALOHA which improves the efficiency of Pure ALOHA is _____.

Select the correct option

○	Upper ALOHA
○	Low ALOHA
◉	Slotted ALOHA
○	Integrated ALOHA

Slotted ALOHA

- We divide time into slots of T_{fr} sec and force the station to send only at the beginning of the slot
- Invented to improve the efficiency of pure ALOHA
- If a station misses the time slot, it must wait

Question # 5 of 20 (Start time: 10:21:27 PM, 28 January 2023)

The message 1110 sent by a source is received by a destination as 1011. This is _____type of error.

Select the correct option

- (●) Burst
- ( ) Single-Bit
- ( ) Uni-Bit

57. Signals travel through fiber optic cable are in the form of _____.

1. Light
2. Bits
3. Electromagnetic
4. Bytes

58. The message 1110 sent by a source is received by a destination as 1011. This is _____ type of error.

1. Burst
2. Single-Bit
3. Uni-Bit
4. Hamming

even 1 of 2

33. **_____ works with topologies in which one drvice is designated as a primary station and the other devices are secondary stations.**

1. Reservation
2. Polling
3. Token
4. None of the given

34. **In even parity check code, the value of syndrome is _____ if the number of 1s is even.**

1. 1
2. 2
3. 0
4. 4

35. **_____ is the rate of change with respect to time.**

Token Passing

- In the token-passing method, the stations in a network are organized in a logical ring
- For each station, there is a predecessor and a successor
- The predecessor is the station which is logically before the

Question # 4 of 20 (Start time: 10:20:49 PM, 28 January 2023)

In the _____ method, the stations in a network are organized in a logical ring.

Select the correct option

- ○ None of the given
- ○ Polling
- ○ Reservation
- ◉ Token-passing

Question # 3 of 20 (Start time: 10:20:19 PM, 28 January 2023)

The _____ protocol uses both flow and error control.

Select the correct option

- ( ) ICMP
- (•) Stop-and-Wait
- ( ) HDLC
- ( ) TCP/IP

_____ transmission technology (based on Ethernet) provides a data rate of 1 billion bits per second.

- Gigabit Ethernet
- Standard Ethernet
- **Megabits**

Question # 1 of 20 (Start time: 10:17:10 PM, 28 January 2023)

_____ is not a function of Data Link Control.

Select the correct option

- ○ Error Control
- ○ Flow Control
- ○ Framing
- ◉ Modulation

two adjacent nodes no matter whether the link is dedicated or broadcast

- Data link control functions include framing, flow control and error control

If we need to correct a single error in an 8-bit data unit, we need to consider_____ possible error location.

- 16
- 2
- 8

Signals travel through fiber optic cable are in the form of .

- Light
- Sound

Baud rate is greater than or equal to the bit rate.

- True
- False

A sine wave is defined by characteristics.

- 2
- 3
- 4

Quadrature Amplitude Modulation (QAM) is the combination of

- FSK, PSK

ASK, PSK

Quadrature Amplitude Modulation (QAM) is the combination of

- FSK, PSK
- ASK, PSK
- None of these

_____ was used as the medium in 10 Base-T.

- Twisted Cable
- Thick Coaxial Cable
- Thin Coaxial Cable

addresses are the identifiers at the _____ layer.

- Physical
- Data-link
- Transport
- Network

Multiple-access Protocol is divided into_____.

Two categories

Three categories

A traditional telephone line has a bandwidth of _____.

- ▶ 2000Hz
- ▶ 4000 Hz
- ▶ 2000 MHz

If the ASCII character H is sent and the character I is received, what type of erro s this?

- · Single-bit
- · Multiple-bit

The BNC-T connector is a T-shaped device with Two ports

Fast Ethernet has a data rate of _____Mbps.

- 10
- 100
- 1000

Standard Ethernet has a data rate of 10 Mbps.

Note: Also Remember Here Standard Ethernet

Traditionally, _____ protocols have been defined for the data-link layer to deal with flow and error control.

- Two
- Three
- Five

Multiplexing is the set of techniques that allows simultaneous TX of multiple signals across _____ data link

- Single
- Multi
- Single and Multi

MAC stand for ____

- Media Access Controller
- Main Access Control
- Media Access Control

_____ takes data from one high speed line and breaks it into portions.

- Multiplexing
- Inverse multiplexing

None

A traditional telephone line has a bandwidth of _____.

► 2000Hz

► 4000 Hz

► 2000 MHz

_____are used to exchange session management and control between connected devices.

U-frames

N-frame

Stop-and-Wait protocol is used for____

Flow control Only

error control

Both flow and error control

What is single bit error???

____is responsible for governing node to node Communication.

- Data Link Layer
- Session Layer

Error correction in more _____than the error detection.

- Useless
- Difficult
- Easy

A periodic signal completes one cycle in 0.001 s. What is the frequency?

- 1 Hz
- 100 Hz
- 1 KHz
- 1 MHz

There are _____ types of serial transmission:

- 1
- 2
- 3
- 4

Using which Unipolar encoding scheme in digital transmission, we represe
0 by zero voltage level and represent 1 by any positive voltage level.

These Notes Created by M. SAQIB (world Of Education)

_____ is the formula for finding number of bits sent per level.

- Log L
- Log2
- Log2 L

The data rate of a T-1 line is _____.

- 1.544 Gbps
- 2.544 Mbps
- 1.544 Kbps
- 1.544 Mbps

CS601 Final Term Preparation 2022/2023

The message 1110 sent by source is received by a destination as 1011.This is ____types of err.

- Hamming
- Single-Bit
- Uni-Bit
- Brust

What is single bit error???

Question # 11 of 20 (Start time: 11:08:06 PM, 28 January 2023)

In _____ type of error, two or more bits in the data unit will be changed.

Select the correct option

- (●) Burst
- ( ) Single bit
- ( ) Mono
- ( ) Zero

Question # 6 of 20 (Start time: 11:02:50 PM, 28 January 2023)

If we increase the data rate of a transmission over noisy channel, fixed noise duration will cause _____ number of bits being impacted by the noise.

Select the correct option

- ○ Constant
- ○ Same
- ○ More
- ◉ Less

frequency, or through code, among different stations

- We discuss three protocols:
  - ✓ Frequency Division Multiple Access (FDMA)
  - ✓ Time Division multiple Access (TDMA)
  - ✓ Code Division Multiple Access (CDMA)

estion # 2 of 20 (Start time: 10:59:23 PM, 28 January 2023)

_____ is responsible for governing node to node communication.

ect the correct option

- Data Link layer
- Session Layer

Stop-and-Wait Protocol

- Stop-and-Wait protocol uses both flow and error control
- The sender sends one frame at a time and waits for an acknowledgment before sending the next one

Question # 19 of 20 (Start time: 10:31:40 PM, 28 January 2023)

Which one of the following is not a Channelization Protocol?

CSMA

Select the correct option

○	FDMA
	TDMA

Question # 18 of 20 (Start time: 10:31:18 PM, 28 January 2023)

_____ is an Authentication Protocol, which is used by the PPP to authenticate password

Select the correct option

- PAP
- CHAP

Question # 16 of 20 (Start time: 10:29:23 PM, 28 January 2023)

The extra bits added with the original data for error detection/correction are called _____.

Select the correct option

- ○ Fault bits
- ○ Port numbers
- Redundant bits

Question # 14 of 20 (Start time: 10:28:33 PM, 28 January 2023)

If we need to correct a single error in an 8-bit data unit, we need to consider _____ possible error locations.

Select the correct option

- (●) 8
- ( ) 2

Question # 15 of 20 (Start time: 10:28:54 PM, 28 January 2023)

The flag in PPP is a byte that needs to be _____ whenever it appears in the data section of the frame.

Select the correct option

- Duplicated
- Cleaned
- Blocked
- Escaped ✓

148. CHAP is an Authentication Protocol, which uses _____ process to authenticate user information.

1. Two-way
2. Three-way
3. Four-way
4. Five-way

149. The flag in PPP is a byte that needs to be _____ whenever it appears in the data section of the frame.

1. Duplicated
2. Blocked
3. Cleaned
4. Escaped

CS601 - Data Communication (Quiz 3)

Question # 7 of 20 (Start time: 10:23:22 PM, 28 January 2023)

In _____, collisions are avoided by deferring transmission even if the channel is idle.

Select the correct option

- ○ The Slotted Frame
- ○ The Contention Window
- ○ The Deployment Frame
- ◉ The Interframe Space

Q#35. Which of the following is an example of ITU-T modem standards:?

- T-series
- X-series
- N-series
- V-series

Q#36. In each station is forced to send a frame only at beginning of time slot

- Pure ALOHA
- Slotted ALOHA
- Fragmented ALOHA
- None of the given

Q#37. Unidirectional traffic movement is overcome by dual ring technology.

- True
- False

Q#38. In each station sends a frame whenever it has a frame to send

- Pure ALOHA
- Slotted ALOHA
- Fragmented ALOHA
- None of the given

Q#39. The data rate of a T-1 line is .

- 1.544 Gbps
- 2.544 Mbps
- 1.544 Kbps
- 1.544 Mbps

Q#40. A set of devices connected by communication links is called networking

- True
- False

Q#44. SONET stands for

- synchronous optical network
- synchronous operational network
- stream optical network
- shell operational network

Q#45. Multiplexing is the set of techniques that allows simultaneous TX of multiple signals across---------data link

- Single
- Multi
- Single and Multi
- none of the given

Q#41. Category 5 UTP cable is used for data transmission of upto .

- 100 Mbps
- 200 Mbps
- 250 Mbps
- 400 Mbps

Q#42. All of popular Fiber optic connectors are _ shaped.

- Conical
- Barrel
- Circular
- Rectangular

Q#43. PCM is the first process of PAM.

- True
- False

Q#46. was used as the medium in 10 Base-T.

- Twisted Cable
- Thick Coaxial Cable
- Thin Coaxial Cable
- Two Mode Fiber Cable

Q#47. takes data from one high speed line and breaks it into portions.

- Multiplexing
- Inverse multiplexing
- Inverse subtraction
- Inverse addition

Q#48. For Carrier Sense Multiple Access/Collision Detection (CSMA/CD) we need a restriction on the

- Collision Size
- Signal Size
- Frame Size
- Station Size

Q#49. At the data-link layer, protocol is designed to handle both flow and error control, but communication is one frame at a time.

- Simple
- Go-Back-N
- Selective-Repeat
- Stop-and-Wait

Q#50. Aloha, CSMA/CD and CSMA/CA are part of .

- Controlled Access protocol
- Channelization protocol
- Mutual access protocol
- Random Access protocol

Q#51. ALOHA the earliest random access method was developed in early .

- 1950s
- 1960s
- 1980s
- 1970s

Q#52. MAC stand for

- Media Access Controller
- Main Access Control
- Mandatory Access Control
- Media Access Control

Q#53. CDMA stands for _

- Carrier Data Multiple Access
- Code Division Multiple Access
- Code Data Multiple Access
- Carrier Division Multiple Access

Q#54. HDLC is an acronym for .

- High-duplex line communication
- High-level data link control
- Half-duplex digital link combination
- Host double-level circuit

Q#55. The BNC-T connector is a T-shaped device with ports

- Three
- Two
- Four
- Five

Q#56. Each station in the Token Ring regenerates the frame.

- True
- False

Q#57. Trunks are transmission media such as that handle the telephone to the nearest end office.

- Satellite links
- Twisted-pair & Fiber-optic
- Twisted-pair
- Fiber-optic

Q#58. The original Ethernet technology with the data rate of 10 Mbps is called ?

- Standard Ethernet
- Fast Ethernet
- Gigabit Ethernet
- 10 Gigabit Ethernet

Q#59. In CSMA/CA is the amount of time divided into slots.

- Contention Window
- Interframe Window
- Fragmented Window
- Collided Window

Q#60...----------creates looping problem in learning switch.

- Unicast
- Multicast
- None of the Given
- Broadcast

Q#61. The PDU has no flag fields, no CRC, and no station address

- TRUE
- FALSE

Q#65. A property of a signal where it is being received by receiver after reflection from different intermediate objects is called

- Attenuation
- Interference
- Error
- Multipath Propagation

Q#66. In context of control signaling network, what does STP stand for

- Shielded twisted pair
- Signaling transmission point
- Signal transportation procedure
- Signal transfer point

Q#62. Multiple-access Protocol is divided into .

- Two categories
- Four categories
- Five categories
- Three categories

Q#63. The amplitude of a digital signal depends upon the to represent a bit.

- Phase
- Wavelength
- Bandwidth
- Voltage

Q#64. Repeater is an amplifier, not a regenerator.

- True
- False

Q#70. In each station is allotted a time slot during which it can send data

- NDMA
- CDMA
- TDMA
- FDMA

Q#71. In collisions are avoided by deferring transmission even if the channel is idle

- The Slotted Frame
- The Deployment Frame
- The Contention Window
- The Interframe Space

Q#72. Unipolar use one voltage levels.

- TRUE
- FALSE

Q#73. Which multiplexing technique shifts each signal to a different carrier frequency?

► FDM
► Synchronous TDM
► Asynchronous TDM
► None of the above

Q#74. Measures the relative strengths of two signals

► Decibel
► Bandwidth
► Phase
► Wavelength

Q#75. The material of core and cladding in fiber optic cable is same.

► TRUE
► FALSE

Q#67. POP stands for

- Presentation of points
- Points of points
- Points of packets
- Points of Presence

Q#68. TCP/IP application layers combine the functions of OSI Application, Session and Transport layers.

- TRUE
- FALSE

Q#69. What does LATA stand for

- Local Area Transmission Arena
- Local-Access Transit Access
- Local-Areas Transport Areas
- Local-Access Transport Areas

Q#76. In cyclic redundancy checking, what is the CRC?

- the divisor
- the quotient
- the dividend
- the remainder

Q#77. _____ is the access protocol used by traditional Ethernet.

- CSMA/CD
- CSMA/CA
- Token Ring
- CSMA

Q#78. Layers 5, 6 and 7 also called as network support layers.

- True
- False

Q#86. In _____ method a signal can be directed in a straight from Antenna to antenna.

- Line of sight
- Ground propagation
- Sky propagation
- Microwaves

Q#87. In _____ transmission, a start bit and a stop bit frame a character byte.

- Asynchronous serial
- Synchronous serial
- Parallel
- Asynchronous & Synchronous serial

Q#88. Amplitude in ASK is more resistive to EMI and Noise.

- True
- False

Q#81. BLAST stands for :

- Blocked asynchronous transmission
- Blocked synchronous transmission
- Barrel asynchronous transmission
- Below asynchronous transmission

Q#82. ENQ/ACK stands for _____

- Enquiry/ Acknowledgment
- Enque/ Acknowledgment
- Enquist/ Acknowledgment
- none of the given

Q#83. Fourier transform tells us that any digital signal can be decomposed into infinite number of periodic signals

- True
- False

Q#79. The shortest frame in HDLC protocol is usually the _____ frame.

- Information
- Supervisory
- Management
- None of the given

Q#80. The HDLC _____ field defines the beginning and end of a frame.

- Flag
- Address
- Control
- FCS

Q#84. Error control is both error _____ and error _____

- detection; correction
- detection; deletion
- detection; avoidance
- detection; forwarding

Q#85. FTTC stands for _____

- flexible to the curb
- fiber to the curb
- fiber to the cable
- fiber to the center

Q#1. was used as the medium in 10 Base-T.

- Twisted Cable
- Thick Coaxial Cable
- Thin Coaxial Cable
- Two Mode Fiber Cable

Q#2. transmission technology (based on Ethernet) provides a data rate of 1 billion bits per second.

- Gigabit Ethernet
- Standard Ethernet
- 10BASE-T Ethernet
- Fast Ethernet

Q#3. A sine wave must be an analog signal.

- True
- False

Q#4. In order to find Hamming distance between two pair of words, logical operation is used.

- NAND
- XOR
- AND
- OR

Q#5. In order to resolve link layer address of the next node, the first generated ARP request is always in mode.

- Multicast
- Unicast
- Multiplex
- Broadcast

Q#6. MAC address is of .

- 48 bits or 64 bits
- 24 bits
- 36 bits
- 42 bits

Q#7. DSL stand For

- Digital Subscribe Line
- Data Subscribe Line
- Data Switched Line
- Digital Switched Line

Q#8. Headers are added at layers 1 and 7 of OSI model.

- True
- False

Q#9 . is the process of converting digital data to digital signals.

- Line Coding
- Multicast
- Broadcast
- Unicast

Q#10. In even parity check code, the value of syndrome is if the number of 1s is even.

- 4
- 0
- 1
- 2

Q#11. In FDDI, Token Passing is used as Access method.

- True
- False

Q#12. In ,---------- a station monitors the medium after it sends a frame to see if the transmission was successful.

- CSMA
- None of Given
- CSMA/CA
- CSMA/CD

Q# 13. ----------are used for Multi cas communication, such as radio and Television.

- Microwaves
- Radio Waves
- Light waves
- Infrared Waves

Q#14. In line discipline after the data transmission, the sending system finishes with an

- EOT
- EKT
- ENT
- ESP
- Infinite

Q#15---------- is responsible for governing node to node communication.

- Application Layer
- Session Layer
- Data Link layer
- Presentation Layer

Q#16. Which of the following is not a characteristic of a sine wave?

- Amplitude
- Segmentation
- Phase
- Frequency

Q#17. The flag in PPP is a byte that needs to be whenever it appears in the data section of the frame.

- Duplicated
- Blocked
- Cleaned
- Escaped

Q#18. Low pass channel has bandwidth between two stations.

- Dedicated
- Shared
- Multiplexed
- Infinite

Q#19. The Internet is .

- software for sending e-mail around the world
- a government-owned agency that links computers
- a global network of computers networks
- a specialised form of local area network

Q#20. No matter whether the link is dedicated or broadcast, data link control (DLC) layer provides services between .

- Virtual LANs
- Two adjacent nodes
- Ethernet links
- Source and destination PCs

Q#21. Two or more computers connected so that they can communicate with each other and share information is called a .

- satellite
- protocol
- broadcast
- network

Q#22. Latency is made of components.

- Two
- Three
- Four
- Five

Q#23. Error detection and correction are the services provided by layer.

- Data link layer
- Application layer
- Physical layer
- Session layer

Q#24. In selective-reject ARQ, only the specific damaged or lost frameis .

- Retransmitted
- Forwarded
- Selected
- Rejected

Q#25. Radio wave transmission utilizes different types of propagation.

- Two
- Three
- Four
- Five

Q#26. category of coaxial cable is used for thin Ethernet.

- RG-58
- RG-59
- RG-1
- RG-47

Q#27. A sine wave is .

- periodic and discrete
- aperiodic and discrete
- periodic and continuous
- aperiodic and continuous

Q#28. Line Configuration refers to the way two or more devices attachto a .

- Path
- Circuit
- Link
- Router

Q#29. In Pure ALOHA, the vulnerable time is ---------- the frame transmission time.

- Same as
- Two times
- Three times
- Four times

Q#30. In encoding, we use three levels: positive, zero, and negative.

- polar
- nonpolar
- mmultilevel
- bipolar

Q#31. In Y-MODEM Multiple files can be sent simultaneously

- True

False

Q#32. There are basic modes for the propagation of light in fiber-optic cables.

- 3
- 4
- 2

Q#33. Using encoding scheme in digital transmission, we represent 0 by zero voltage level and represent 1 by any positive voltage level.

- Polar
- AMI
- Bipolar
- Unipolar

Q#34. Time domain plot show changes in signal phase with respect to time.

- True
- False