



vulmshelp.com

AL-JUNAID INSTITUTE GRPOUP

LMS handling service are
available

PAID

**Assignment, QUIZ, GDBZ and
GRAND QUIZ SERVICE are
available**

0304-1659294

M.JUNAID

0304-1659294

Junaidfazal08@gmail.com

AL-JUNAID INSTITUTE GRPOUP

CS601 GRAND QUIZ

FILE

Which one of following is a scrambling coding technique?

B8ZS

- B8SZ
- B08SZ
- BZ8S

According to the Fourier analysis, frequencies obtained after decomposition of digital signals are_____.

- Continuous
- Discrete**
- Bit length
- Homogeneous

Low pass channel has_____ bandwidth between two stations.

- Dedicated
- Shared**
- Multiplexed
- Infinite

_____ is the heart of blocking code.

Coding

- Division
- Substitution
- Multiplication

Wireless transmission can be divided into_____ broad groups.

- Two
- Three**
- Four
- Five

Wiring used for transmission modes depends upon_____.

AL-JUNAID INSTITUTE GRPOUP

- Latency
- Data Stream
- Data sniffing
- Packet Tracing

If a digital transmission system is sending five bits in every half a second, the bit-rate of the system.

- 5 bps

- 10 Hz
- 0.2 bps
- 10 bps

If the message going to pass through a packet-switched network, it can be divided into packets of _____.

- Fixed size
- Variable size

- Both fix and Variable size

- None

In an analogue hierarchy to carry voice channels, a group can carry _____ voice channels.

- 60
- 12
- 20
- 10

1. In optical fiber a glass or plastic core is surrounded by a _____.

- Cladding

- Outer conductor shield
- Inner Conductor shield
- Insulator

In transmission impairments _____ noise occurs from other sourcelike

- Impulse
- Induced
- Cross talk
- Thermal

AL-JUNAID INSTITUTE GRPOUP

_____ is a digital process that allows connections to share the high bandwidth of a link.

- FDM
- TDM
- WDM
- None of the choices is correct

Bandwidth in hertz in the range of _____ contained in a composite signal.

- Signals
- Phases
- Amplitudes
- Frequencies

LAN stands for _____.

- Logical area network
- Long-distance Area Network
- Local Area Network
- Long Area Network

Demultiplexer is a _____ device.

- One to many
- Many to many
- One to one
- Many to many

Mr. Asif while sitting in Lahore is linking with his friend in Dubai through Skype is a _____.

- Local Area Network
- Metropolitan Area Network
- Wide Area Network
- Home Based Network

In _____ modulation, frequency and amplitude remain constant.

- Phase
- Frequency
- Amplitude
- Quadrature

AL-JUNAID INSTITUTE GRPOUP

In TDM based digital hierarchy used by the Telephone companies, DS-0 is a single digital channel of_____.

- 1.544 Mbps
- 128 kbps
- 64 kbps
- 32 kbps

The bandwidth-delay product defines the number of bits that can fill the _____.

Link

- Network
- Hub
- Switch

If a digital-signals has four levels, then we need _____ bits to represent each level.

2

- 3
- 4
- 5

Routing is a function of _____ layer.

Network

- Physical
- Transport
- Datalink

_____ relatively measures the strength of two signals.

- Signal rate
- Bit rate
- Decibel
- Pulse rate

Taking off the header from the message is called_____.

Layering

Encryption

- Decapsulation
- Stuffing

Which of the following is not a characteristic of a sine wave?

AL-JUNAID INSTITUTE GRPOUP

Amplitude

Segmentation

Phase

Frequency

In frequency domain plot, which value is replaced with frequency?

Wavelength

Amplitude

Phase

Time

_____ is the process of converting binary data to a digital signal.

QAM

ASK

FSK

Line coding

Low pass channel with _____ bandwidth is not real and is used for theoretical modeling.

Multiplex

Infinite

Ethernet

Narrow

HDB3 falls under which coding scheme?

Bipolar

Bi phase

Line

Block

Unit of phase is _____.

Bits per second

Watts

Bauds

Degree

BFSK stands for _____.

Baud Frequency Shift Key

AL-JUNAID INSTITUTE GRPOUP

- **Binary Frequency Shift Key**

- Barrier Frequency Shift Key
- Bridge Frequency Shift Key

_____ is NOT an example of connecting device.

- Bridge
- Router

- **TCP**

- Switch

Coaxial cables are categorized by their _____ ratings.

- Electronic Industries Association (EIA)
- Amplitude modulation (AM)
- Frequency modulation (FM)

- **Radio Government (RG)**

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

- Capacity=Bandwidth*(1+SNR)
- Capacity=Bandwidth*log₂(2+SNR)
- Capacity=Bandwidth*log₂(SNR)

- **Capacity=Bandwidth*log₂(1+SNR)**

Which one of the following is not among the required phases for the actual communication in a circuit switched network?

- Setup
- Data transfer

- **Protocol**

- Connection teardown

A common bipolar encoding scheme is called _____.

- **AMI**

- NRZ
- RZ
- QAM

A telephone line analog signal has got the bandwidth of _____.

- 8 kHz

AL-JUNAID INSTITUTE GRPOUP

2 kHz

- 16 kHz
- 4 kHz

In _____ systems, resources are allocated on demand.

- Frequency switching
- Line switching
- Circuit switching**
- Packet switching

A fiber-optic cable transmit signals in the form of _____.

- Light**
- Sound
- Waves
- None of the given

Composite wave can be used to send _____.

- Bandwidth
- Telephone
- Amplitude

Frequency

Routing is the function of _____ layer.

- Network**
- Physical
- Transport
- Data link

A virtual-circuit network operates on _____ layer.

Datalink

- Network
- Physical
- Application

In TCP\IP model, the Physical Layer exchanges data in the form of _____.

- Packets
- Frames

Bits

AL-JUNAID INSTITUTE GRPOUP

- Segments

_____ signal completes certain pattern in a specific amount of time.

- Non-periodic
- **Periodic**
- A Periodic
- Wavelength

Narrow bands of lights in wave division multiplexing are denoted by_____.

- β
- n
- α
- **_____**

If a digital signal has four levels, the we need _____bits to represent.

- **2**
- 3
- 4
- 5

We can have combination of _____ possible codes with a 5-bit code.

- 4
- 8
- 18
- **32**

There are _____categories of multiplexing.

- 2
- **3**
- 7
- 5

Top most organization that provides support for the Internet Standard process is called_____.

- Internet Society (ISOC)
- Internet Architecture Board (IAB)

- **IETF**

AL-JUNAID INSTITUTE GRPOUP

- IRTF

If the message is going to pass through a packet-switched network, it can be divided into packets of_____.

- Fixed size
- Variable size
- **Both-fix and variable size**
- None

_____ data moves faster and timing errors are less frequent because the transmitter and receiver time is synced.

- Synchronous
- Asynchronous
- **Isochronous**
- Metachronous

In frequency modulation, the frequency of the oscillator changes according to the_____.

- Output Voltage
- Output Frequency
- **Input Voltage**
- Output Phases

Binary Amplitude Shift Keying also called as:

- Dual Keying
- On-In Keying
- **On-Off Keying**
- In-Out Keying

_____ signals can take infinite levels of intensity over time.

- Digital
- Discrete
- **Analog**
- Logical

Bi-polar uses_____ voltage levels.

- One
- **Two**

AL-JUNAID INSTITUTE GRPOUP

- Three
- Four

In serial data transmission _____ data transmission mode can be cheap but slower.

- Synchronous
- Asynchronous**
- Isochronous
- Metachronous

In star-based network comprising of four computers and one switch, total number of cable needed will be _____.

- 4**
- 5
- 6
- 3

Parabolic antenna is used for _____ communication.

- Infrared waves
- Microwave**
- Light wave
- Radio wave

In circuit switching total Delay is combination of Connection Time and _____.

- Switching time
- Acknowledgement time
- Receiving time
- Connection tear down time**

Guard bands are used in _____ multiplexing technique, to avoid overlapping of frequency bands assigned to each user.

- PDM
- CSMA
- TDM
- FDM**

Datagram switching is done on _____.

- Application Layer
- Datalink Layer

AL-JUNAID INSTITUTE GRPOUP

- Physical Layer
- **Network Layer**

Token Ring was devised by_____.

- **IBM**

- OSI
- Dell
- NASA

In TDM based digital hierarchy used by the Telephone companies, DS-0 is a digital channel of_____.

- **1.544 Mbps**

- 128 kbps
- 64 kbps
- 32kbps Repeated

_____can be published using Request for Comments (RFCs).

- Proposed Standard
- Draft Standard
- **Internet Draft**
- Internet Standard

In transmission impairments_____ noise occurs from the random motion of electrons in a wire.

- **Thermal noise**

- Impulse noise
- Cross talk
- Induced noise

In ASK correct formula for calculating the bandwidth is as_____.

- **$B=(1*d)S$**

- $B=(d-1)S$
- $B=(d-5)S$

Which one of the following is among the required phases for the actual communication in a circuit switched network?

- Setup
- **Data transfer**

AL-JUNAID INSTITUTE GRPOUP

- Protocol
- Connection tear down

According to the Fourier analysis, frequencies obtained after decomposition of non-periodic digital signals are_____.

○ Bit length

- Automatic
- Heterogenous
- Continuous

The most common type of connector used by the coaxial cable is_____.

- **BNC**
- RJ-45
- RJ-11
- RJ-57

When data is sent or received using_____ the data bits are organized in a specific order, since they

- Parallel data transmission
- **Serial data transmission**
- Hybrid data transmission
- Both parallel and serial data transmission

_____ have established standards for using these signals for communication between devices such as keyboards, mice, PCs, and printers.

- Microwave

○ Infrared waves

- Simple waves
- Radio waves

In case of Frequency shift key, the difference between two frequency is represented as_____.

○ 2Δ

- 3Δ
- 6Δ
- $2 \times 5\Delta$

_____ category of coaxial cable is used for thin Ethernet.

AL-JUNAID INSTITUTE GRPOUP

RG-58

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

Cellular telephone uses _____ waves for communication.

- Light waves
- Infrared waves

Radio waves

- Microwaves

_____ mode of serial transmission guarantees fixed rate data.

- Synchronous
- Asynchronous

Isochronous

- Metasochronous

Router is a network device which operates on the _____ layers of the TCP\IP protocol suit.

- Application
- Transport

Network

- Presentation

_____ layer is responsible for the creating of the datagrams.

- Physical
- Data link
- Session

Network

Narrow bands of light in waves division multiplexing are denoted by _____.

- β
- n
- α
- λ

Repeated

In virtual circuit approach when a frame enters a switch and when it leaves a switch its VCI always _____.

AL-JUNAID INSTITUTE GRPOUP

- Always changes
- Sometimes changes
- Sometimes Remain Same
- Remain the same**

According to stats, fewer than _____ crossbar points can be used at once.

- 14%
- 100%
- 30%
- 25%**

If data rate is to be 1 Mbps then what will be the minimum bandwidth required for NRZ-1 coding scheme?

- 1Khz
- 200Khz
- 500Khz
- 0.5khz

Data format used at Transport layer of TCP/IP protocol suit is called_____.

- Packet**
- Frame
- Bit
- Segment

A virtual circuit network operates on _____ layer.

- Data link
- Network
- Physical

- Application** Repeated

If 32 bits are sent in two seconds then the bitrate for that signal is_____.

- 32 bps
- 64 bps
- 8 Hz
- 16 bps** Repeated

Cable TV networks use_____ cables.

- Coaxial**

AL-JUNAID INSTITUTE GRPOUP

- UTP
- STP
- Twisted pair Repeated

_____ normally used for long-distance data transfer.

- Parallel data transmission
- Serial data transmission
- Hybrid data transmission
- Both parallel and Serial data transmission** Repeated

_____ is a block coding method.

- NRZ
- NRZ-1
- 8B\10B**
- 8B\12B

TCP\IP was chosen to be the official protocol of internet _____.

- 1973
- 1980
- 1983**
- 1988

To measure the data rate _____ theoretically formula(s)Were developed.

- One
- Two
- Three
- Four** Repeated

In FSK, Baud rate is less than or equal to _____ rate.

- Signal
- Decibel
- Bit
- None of these Given** Repeated

_____ signal is represented by the discrete values.

- Analog
- Digital**

AL-JUNAID INSTITUTE GRPOUP

- Both
- Continuous

Electromagnetic waves ranging in frequencies between 3 kHz and 1 GHz are called_____.

- Infrared waves
- Radio waves**
- PCLight waves
- Microwaves

Suppose a signal is amplitude then the value od decibel will be _____.

- 0
 - 1
 - Negative
 - Positive**
- Repeated

_____ technique does not follows analog conversion.

- QAM**
- AM
- FM
- PM
- Repeated

In Pulse Code Modulation (PCM), the sampling is dependent on_____.

- Time
- Amplitude**
- Frequency
- Signal Rate

_____ is the sub type of Time Division Multiplexing Technique.

- Amplitude TDM
- Light TDM
- Statistical TDM**
- Barrier TDM

Modulation of analog signal is needed if the medium is _____ in nature.

- Bandpass**

AL-JUNAID INSTITUTE GRPOUP

- Low-pass
- Bi-pass
- High-pass

Quadrature Amplitude Modulation (QAM) is the combination of _____ and _____.

- FSK-PSK
- PSK-FSK
- ASK-PSK
- ASK-FSK**

There _____ components of data communication system.

- 4
- 5**
- 6
- 7

QPSK stands for _____.

- Quality phase shift key
- Queuing phase shift key
- Quadrature phase shift key**
- Quality physical shift key

To calculate the data rate for noisy channel _____ formula is used.

- Shannon**
- Nyquist
- Propagation
- Greedy

Most commonly used connector for twisted pair cable is _____.

- RJ-11
- RJ-45**
- RJ-44
- RJ-52

Binary Amplitude Shift Keying is also called as:

- Dual Keying
- On-In Keying

AL-JUNAID INSTITUTE GRPOUP

On-Off Keying

- In-Out Keying

Some manufacturers provide a special port called the_____.

IrDA

- Consol
- Parallel
- USB

To calculate the data rate for noiseless channel _____ formula is used.

- Ready
- Shannon

Nyquist

- Propagation

Two PCs and one printer are connected in a network within a room, it is an example of _____.

LAN

- WAN
- MAN
- SONET

Analog the following cables given, _____ cable provides highest bandwidth and less attenuation.

- UTP
- Coaxial cable
- Coaxial cable

Fiber optical

To calculate the data for noisy channel _____ formula is used.

Shannon

- Nyquist
- Propagation
- Greedy

In circuit switched networks we have low efficiency but minimal _____.

Delay

- Speed

AL-JUNAID INSTITUTE GRPOUP

- Throughput
- Errors

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

- Light**

- Bits
- Electromagnetic
- Bytes

Polar encoding scheme uses_____ voltage level.

- 0

- 1**

- 2
- 3

TCP\IP protocol suit consists of _____ layers.

- 3

- 5**

- 6
- 7

Bandwidth in hertz is the range of _____ contained in a composite signal.

- Signals
- Phases
- Amplitudes

- Frequencies**

_____ is an example of a host in a network.

- Router

- Computer**

- Bridge
- Hub

Set of rules to be followed for effective communication is called_____.

- Topology
- Protocol**
- Switching
- Encryption

AL-JUNAID INSTITUTE GRPOUP

_____ is NOT an example of a connecting device.

- Bridge
- Router
- TCP
- Switch

When an antenna transmits radio waves, they are propagated in _____.

- All directions
- Left directions
- Right directions

Only up and down direction

Which one of the following is not a bipolar encoding level?

- Negative
- One
- Zero
- Positive

_____ and _____ are the two types of addressing in virtual circuit approach.

Local, Global

- Private, Public
- Variable, Dynamic
- Dependent, Independent

In transmission implements _____ noise occurs from other sources like motors and appliances etc.

- Impulse
- Inductive

Cross talk

- Thermal

In computer network the stations are connected to each other in such a way that each station is connected to every other station through dedicated links. This makes _____.

Bus

- Ring
- Star
- Mesh

AL-JUNAID INSTITUTE GRPOUP

In scrambling coding scheme, the number of pulses replacing the bits will be_____?

Equal to pulses

- Double the pulses
- Half of the pulses
- Triple the pulses

In the context of analog to analog signal conversation technique. "PM" Stands for_____.

- Pulse Modulation
- Phase modulation**
- Parse modulation
- Popular modulation

_____ relatively measurement the strength of two signals.

- Signals
- Bit rate

Decibel

- Pulse rate

Datagram approach and circuit approach are two popular approaches which lead us to_____.

- Line switching
- Circuit switching
- Dynamic switching

Packet switching

If data is to be 1 Mbps then what will be the minimum bandwidth required for NRZ-I coding scheme?

- 1Khz
- 200Khz
- 500khz
- 0.5khz

In virtual circuit approach when frame enters a switch and when it leaves a switch its VCI always_____.

- Always Changes
- Sometimes Changes

AL-JUNAID INSTITUTE GRPOUP

- Sometimes Remain Same

- Remain the Same**

A common bipolar coding scheme is called_____.

- AMI**

- NRZ
- RZ
- QAM

_____ means loss of energy in signal.

- Noise
- Delay

- Attenuation**

- Distortion

The conversion of analog simple of the signal into digital form is called _____ process.

- Quantizing

- Sampling**

- Modulation
- Quantizing and Sampling

A local telephone network use _____ network.

- Line switched
- Packet switched

- Circuit switched**

- Bit switched

In Amplitude Shift Keying, _____ of the signal is/are changed.

- Amplitude and Frequency

- Amplitude**

- Frequency and Amplitude
- Phase

In frequency domain plot, which value is plot on Y-axis?

- Time
- Frequency

- Amplitude**

AL-JUNAID INSTITUTE GRPOUP

- Wavelength

In pulse code modulation the term sampling can also be referred as_____.

○ Pulse Amplitude Modulation

- Pulse sample Modulation
- Pulse line modulation
- Pulse Frequency Modulation

Switch is a network device which operates on the _____ layer of TCP/IP protocol suit.

- Application
- Transport
- Presentation

○ Data link

In analog transmission of digital data, the required bandwidth is always proportional to the signal rate expect in _____ a digital to analog conversion technique.

- ASK
- FSK
- PSK
- NSK

WDM stands for_____.

- Wideband De-Modulation
- Worst Data Manipulation

○ Wavelength Division Multiplexing

- None of the Choices is correct

_____ does not follows analog to analog conversion.

○ QAM

- AM
- FM
- PM

On a communication link, different channels are separates by unused strips of bandwidth called as_____.

- Base band
- Broad band

AL-JUNAID INSTITUTE GRPOUP

- Null band
- Guard band**
-

_____ layer converts frames coming from Data Link Layer into bits and sends

Them on the transmission medium.

- Application
- Physical**
- Network
- Transport

Wavelength binds the _____ of a simple sine wave to the propagation speed of the medium.

- Phase
- Period of the frequency** book page 61
- Amplitude
- Bandwidth

The bandwidth delay product define the number of bits that can fill the _____.

- Link
- Network**
- Hub
- Switch

The size of the packet determined by the network and _____.

- Delays
- Switching
- Instructions
- Governing protocol**
-

To improve the performance of line coding _____ coding was.....?

- Block coding**
- MLT-3
- 2BIQ
- Double coding

AL-JUNAID INSTITUTE GRPOUP

Which one of the following is not a sampling technique?

- Flat Top Sampling
- Neutral sampling**
- Natural sampling
- Ideal sampling

_____ is normally used where speed is priority in data transfer.

- Serial data transmission
- Hybrid transmission**
- Parallel transmission
- Both parallel and serial transmission

In a computer network, five stations are connected to each other in such a way that each station is connected to every other station through dedicated links. This makes _____ topology.

- Bus
- Ring
- Star
- Mesh**

Some manufacturer provide a special port called the _____ port that allows a wireless keyboard to communicate with a PC.

- IrDA**
- Consol
- Parallel
- USB

Current technology supports _____ modes for propagation of light.

- Two**
- Three
- Four
- Five

We quantize the sampling output into certain levels based on range of _____ and required accuracy.

- Frequency
- Amplitude**
- Time period

AL-JUNAID INSTITUTE GRPOUP

- None

_____ is the Nyquist bit rate formula for noiseless channel.

○ **BitRate=2*Bandwidth*log2 L**

- BitRate=2*Bandwidth*logL
- BitRate=2*Bandwidth*log2L
- BitRate=2*Bandwidth*L

A frequency is called _____, if the rate of change in sine wave is instantaneous.

○ **Infinite frequency** book page 59

- Zero frequency
- Bandwidth
- Frequency hertz

Which multiplexing technique involves signals composed of light beams?

- FDM
- TDM
- **WDM**
- PDM

_____ is a multiplexing technique which shifts each signal to a different carrier frequency.

- **FDM**
- TDM
- WDM
- PDM

Entire band in United States is regulated by _____ authorities.

- **FCC**
- ITU
- NASA
- ANSI

Two stations are connected via a secure link in which messages are encrypted from source to the destination message is called-----

- Plain text
- Cipher text

AL-JUNAID INSTITUTE GRPOUP

○ Message

○ **Protocol (not confirm)**

Simultaneous transmission of multiple signal across a single data link is called-----

○ Demultiplexing

○ **Multiplexing**

○ Modulation

○ demodulation

in NRZ-1 the signal is inverted if ----- is encountered.

○ 0

○ **1**

○ 00

○ 11

----- Protocol suite is being used by the modern internet communication.

○ OSI

○ **TCP/IP**

○ ARPANET

○ Telnet

In the frequency shift keying, ----- remain(s) constant.

○ Frequency

○ **Amplitude**

○ Both amplitude and phase

○ Both phase and frequency

In ----- signal changes its shape or form.

○ Thermal noise

○ **Distortion**

○ Impulse noise

○ Attenuation

----- coding scheme are useful for LAN but not for long ranges.

○ **Biphase** **book page 113**

○ Line

○ Vector

○ Serial

AL-JUNAID INSTITUTE GRPOUP

In ----- TDM, each input connection has an allotment in the output even if is not sending data.

- Asynchronous
- Statistical
- **Synchronous (Book page 164)**
- Isochronous

----- is a type of serial transmission in which data bits are transmitted as a continues stream in time with a master clock. Start bits, stop bits, and gaps are not used. Transmitter and receiver time is sync.

- Synchronous
- Asynchronous
- **Isochronous**
- Metasochronous

----- Relative measures the strength of two signals.

- Signal rate
- Bit rate
- **Decibel**
- Pulse rate

When the bandwidth of a link is greater than the combined bandwidths of the signals, we use ----- multiplexing.

- Wavelength division
- **Frequency division**
- Time division
- Hybrid division

----- is an example of host in a network.

- Router
- **Computer**
- Bridge
- Hub

On a communication link, different channels are separated by unused strips of bandwidth called as -----.

- Base band
- Broad band

AL-JUNAID INSTITUTE GRPOUP

- Null
- Guard band**

The conversion of analog sample of the signal into digital form is called ----- process.

- Quantizing
- Sampling
- Modulation
- Quantizing and sampling (Book pages 115 to 116)**

In star based network comprising of four computers and on switch, total number of cables needed will be -----

- 4**
- 5
- 6
- 3

The logical connection between the peer layers is ----- connection.

- Physical
- Direct (no strong reference but as per book explanation layer to layer is direct)**
- Indirect
- Tangible

In ----- TDM, slots are dynamically allocated to the connected stations to improve bandwidth efficiency.

- Synchronous
- Statistical**
- Isochronous
- None of the choice is correct

According to stats, lower than ----- crossbar point can be used at once .

- 14%
- 100%
- 30%
- 25%**

----- Category of coaxial cable is used for cable TV.

- RG-58

AL-JUNAID INSTITUTE GRPOUP

o RG-59

- o RG-11
- o RG-47

----- is sometimes called the bit rate.

- o Signal rate
- o Modulation rate

o Data rate

- o Pulse rate

Uni polar, polar and bipolar are the types of -----

- o Line
- o Differential Manchester

o NRZ-I

- o Block

Router is a network device which operates on the ----- layer of the TCP/IP protocol.

- o Application
- o Transport
- o **Network**
- o Presentation

According to the Fourier analysis, frequencies obtained after decomposition of no period.

- o Bit length
- o Automatic
- o Heterogeneous
- o **Continuous** (Fourier analysis can be used to decompose a digital signal. If the digital signal is periodic, which is rare in data communications, the decomposed signal has a frequencydomain representation with an infinite bandwidth and discrete frequencies. If the digital signal is nonperiodic, the decomposed signal still has an infinite bandwidth, but the frequencies are continuous **page 70 Data communication Book 5th generation**)

When the bandwidth of a link is greater than combined bandwidths of the

- o Wavelength division
- o **Frequency division**
- o Time division

AL-JUNAID INSTITUTE GRPOUP

- Hybrid division

The ----- technique expands the bandwidth of a signal by replacing each data bit with n bits using a spreading code.

- FDM
- FHSS
- TDM
- **DSSS**

----- Cable is used in wavelength division multiplexing.

- Twisted pair
- Coaxial
- **Fiber optic**
- Ethernet

VCI address is ----- address in virtual circuit approach.

- Private
- Variable
- Local
- **Global**

In baseband transmission, a digital signal is transmitted as -----.

- Analog signal
- **Digital signal**
- Modulation signal
- Multiplexed signal

telephone network use ----- network.

- Line switched
- Packet switched
- **Circuit switched**
- Bit switched

Entire band in United states is regulated by ----- authorities.

- **FCC**
- ITU
- NASA
- ANSI

AL-JUNAID INSTITUTE GRPOUP

----- are used for multicast communication, such as radio and television.

- Microwaves
- Radio waves**
- Light waves
- Infrared waves

To calculate the data rate foe noiseless channel ----- formula is used-

- Reedy
- Shannon
- Nyquist**
- propagation

In an analogue hierarchy to carry voice channels, a super group _____ bandwidth.

- 240 kHz
- 240 Hz
- 120 kHz
- 60kHz**