Multiple Choice Questions and Answers

Sub-Data communication and computer Network

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1. The_____is the physical path over which a message travels.

A. Protocol
B. Medium
C. Signal
D. All the above

2. The information to be communicated in a data communications system is the_____.

A. Medium
B. Protocol
C. Message
D. Transmission

3. Frequency of failure and network recovery time after a failure are measures of the_____of a network.

A. Performance
B. Reliability
C. Security
D. Feasibility

4. An unauthorized user is a network_____issue.

A. Performance
B. Reliability
C. Security
D. All the above

5. Which topology requires a central controller or hub?

A. Mesh

B. Star
C. Bus
D. Ring

6. Which topology requires a multipoint connection?

A. Mesh
B. Bus
C. Ring
D. Star

7. Communication between a computer and a keyboard involves _____ transmission.

A. simplex
B. half-duplex
C. full-duplex
D. automatic

8. A television broadcast is an example of_____transmission.

A. simplex
B. half-duplex
C. full-duplex
D. automatic

9. _____ Connection provides a dedicated link between two devices.

A. point-to-point
B. multipoint
C. primary
D. secondary

10. In a_____connection, more than two devices can share a single link.

A. point-to-point
B. multipoint
C. primary
D. secondary

Answer key for MCQ SET- 1	
Q-1	Correct Answer: Medium

Q-2	Correct Answer: Message
Q-3	Correct Answer: Reliability
Q-4	Correct Answer: Security
Q-5	Correct Answer: Star
Q-6	Correct Answer: Bus
Q-7	Correct Answer: simplex
Q-8	Correct Answer: simplex

Data Communication and Networking Basics MCQ Set – 2

1. In_____transmission, the channel capacity is shared by both communicating devices at all times.

A. simplex
B. half-duplex
C. full-duplex
D. half-simplex

2. In the original ARPANET,_____were directly connected together.

A. IMPs
B. host computers
C. networks
D. routers

3. This was the first network.

A. CSNET
B. NSFNET
C. ANSNET
D. ARPANET

4. Which organization has authority over interstate and international commerce in the communications field?

A. ITU-T
B. IEEE
C. FCC
D. ISOC

5. _____ are special-interest groups that quickly test, evaluate,

and standardize new technologies.

A. Forums
B. Regulatory agencies
C. Standards organizations
D. All of the above

6. Which agency developed standards for physical connection interfaces and electronic signaling specifications?

A. EIA
B. ITU-T
C. ANSI
D. ISO

7. _____ is the protocol suite for the current Internet.

A. TCP/IP
B. NCP
C. UNIX
D. ACM

8. _____ refers to the structure or format of the data, meaning the order in which they are presented.

A. Semantics
B. Syntax
C. Timing
D. All of the above

9. _____ defines how a particular pattern to be interpreted, and what action is to be taken based on that interpretation.

A. Semantics
B. Syntax
C. Timing
D. None of the above

10. Which refers to two characteristics: when data should be sent and how fast it can be sent.

A. Semantics
B. Syntax
C. Timing
D. none of the above

Answer key for MCQ SET- 2	
Q-1	Correct Answer: full-duplex
Q-2	Correct Answer: IMPs
Q-3	Correct Answer: ARPANET
Q-4	Correct Answer: FCC
Q-5	Correct Answer: Forums
Q-6	Correct Answer: EIA
Q-7	Correct Answer: TCP/IP
Q-8	Correct Answer: Syntax
Q-9	Correct Answer: Semantics
Q-10	Correct Answer: Timing

Data Communication and Networking Basics MCQ Set – 3

1. Data flow between two devices can occur in a_____way.

A. simplex
B. half-duplex
C. full-duplex
D. all of the above

2. In a_____connection, two and only two devices are connected by a dedicated link.

A. multipoint
B. point-to-point
C. (a) and (b)
D. none of the above

3. In a_____connection, three or more devices share a link.

A. multipoint
B. point-to-point
C. (a) and (b)
D. none of the above

4. **refers to the physical or logical arrangement of a network**.

A. Data flow
B. Mode of operation
C. Topology
D. None of the above

5. **Devices may be arranged in a _____topology**

A. mesh
B. ring
C. bus
D. all of the above

6. **A_____is a data communication system within a building, plant, or campus, or between nearby buildings.**

A. MAN
B. LAN
C. WAN
D. none of the above

7. **A_____is a data communication system spanning states, countries, or the whole world**.

A. MAN
B. LAN
C. WAN
D. none of the above

8. **_____ is a collection of many separate networks**

A. A WAN
B. An internet
C. a LAN
D. None of the above

9. **There are_____Internet service providers.**

A. local
B. regional
C. national and international
D. all of the above

10. **A_____is a set of rules that governs data communication**.

A. forum
B. protocol
C. standard
D. none of the above

Answer key for MCQ SET- 3	
Q-1	Correct Answer: all of the above
Q-2	Correct Answer: point-to-point
Q-3	Correct Answer: multipoint
Q-4	Correct Answer: Topology
Q-5	Correct Answer: all of the above
Q-6	Correct Answer: LAN
Q-7	Correct Answer: WAN
Q-8	Correct Answer: An internet
Q-9	Correct Answer: all of the above
Q-10	Correct Answer: protocol

Network Model Multiple Choice Questions and Answers (MCQ) Set-1

1. The Internet model consists of_____layers.

A. Three
B. Five
C. Seven
D. Eight

2. The process-to-process delivery of the entire message is the responsibility of the__layer.

A. Network
B. Transport

C. Application
D. Physical

3. The_____layer is the layer closest to the transmission medium.

A. Physical
B. Data link
C. Network
D. Transport

4. Mail services are available to network users through the _____ layer.

A. Data link
B. Physical
C. Transport
D. Application

5. As the data packet headers moves from upper layer to lower layers headers are__.

A. Added
B. Removed
C. Rearranged
D. Modified

6. The_____layer lies between the network layer and the application layer.

A. Physical
B. Data link
C. Transport
D. None of the above

7. Layer 2 lies between the physical layer and the_____layer

A. Network
B. Data link
C. Transport
D. None of the above

8. When data are transmitted from device A to device B, the header from A's layer 4 is read by B's_____layer.

A. Physical
B. Transport
C. Application
D. None of the above

9. The_____layer changes bits into electromagnetic signals.

A. Physical
B. Data link
C. Transport
D. None of the above

10. Which of the following is an application layer service?

A. Remote log-in
B. File transfer and access
C. Mail service
D. All the above

Answer key for MCQ SET- 1	
Q-1	Correct Answer :Five
Q-2	Correct Answer :Transport
Q-3	Correct Answer :Physical
Q-4	Correct Answer :Application
Q-5	Correct Answer :Added
Q-6	Correct Answer :Transport
Q-7	Correct Answer :Network
Q-8	Correct Answer :Transport
Q-9	Correct Answer :Physical
Q-10	Correct Answer :All the above

Network Model Multiple Choice Questions and Answers (MCQ) Set-2

1. Why was the OSI model developed?

A. Manufacturers disliked the TCP/IP protocol suite
B. The rate of data transfer was increasing exponentially

C. Standards were needed to allow any two systems to communicate
D. None of the above

2. The_____model shows how the network functions of a computer ought to be organized.

A. CCITT
B. OSI
C. ISO
D. ANSI

3. The physical layer is concerned with the movement of _____ over the physical medium.

A. programs
B. dialogs
C. protocols
D. bits

4. The OSI model consists of_____layers.

A. three
B. five
C. seven
D. eight

5. In the OSI model, as a data packet moves from the lower to the upper layers, headers are__.

A. added
B. removed
C. rearranged
D. modified

6. In the OSI model, when data is transmitted from device A

to device B, the header from A's layer 5 is read by B's __layer.

A. physical
B. transport
C. session
D. presentation

7. In the OSI model, what is the main function of the transport layer?

A. node-to-node delivery
B. process-to-process message delivery
C. synchronization
D. updating and maintenance of routing tables

8. In the OSI model, encryption and decryption are functions of the _____ layer.

A. transport
B. session
C. presentation
D. application

9. When a host on network A sends a message to a host on network B, which address does the router look at?

A. port
B. logical
C. physical
D. none of the above

10. To deliver a message to the correct application program running on a host, the___address must be consulted.

A. port
B. IP
C. physical
D. none of the above

Answer key for MCQ SET- 2	
Q-1	Correct Answer :Standards were needed to allow any two systems to communicate
Q-2	Correct Answer :OSI
Q-3	Correct Answer :bits
Q-4	Correct Answer :seven
Q-5	Correct Answer :removed
Q-6	Correct Answer :session
Q-7	Correct Answer :process-to-process message delivery
Q-8	Correct Answer :presentation
Q-9	Correct Answer :logical
Q-10	Correct Answer :port

Network Model Multiple Choice Questions and Answers (MCQ) Set-3

1. IPv6 has_____-bit addresses.

A. 32
B. 64
C. 128
D. variable

2. ICMPv6 includes

A. IGMP
B. ARP
C. RARP
D. a and b

3. The_____layer is responsible for moving frames from one

hop (node) to the next.

A. physical
B. data link
C. transport
D. none of the above

4. The_____layer adds a header to the packet coming from the upper layer that includes the logical addresses of the sender and receiver.

A. physical
B. data link
C. network
D. None of the above

5. The_____layer is responsible for the delivery of a message from one process to another.

A. physical
B. transport
C. network
D. none of the above

6. The Internetworking Protocol (IP) is a_____protocol

A. reliable
B. connection-oriented
C. both a and b
D. none of the above

7. _____ is a process-to-process protocol that adds only port addresses, checksum error control, and length information to the data from the upper layer.

A. TCP
B. UDP
C. IP
D. none of the above

8. _____ provides full transport layer services to applications.

A. TCP
B. UDP
C. ARP
D. None of the above

9. The_____address, also known as the link address, is the address of a node as defined by its LAN or WAN

A. port
B. physical
C. logical
D. none of the above

10. Ethernet uses a_____physical address that is imprinted on the network interface card (NIC)

A. 32-bit
B. 64-bit
C. 6-byte
D. none of the above

Answer key for MCQ SET- 3	
Q-1	Correct Answer :128
Q-2	Correct Answer :a and b
Q-3	Correct Answer :data link
Q-4	Correct Answer :network
Q-5	Correct Answer :transport
Q-6	Correct Answer :none of the above
Q-7	Correct Answer :UDP
Q-8	Correct Answer :TCP
Q-9	Correct Answer :physical
Q-10	Correct Answer :6-byte

Network Model Multiple Choice Questions and Answers (MCQ) Set-4

1. A port address in TCP/IP is_____bits long.

A. 32
B. 48
C. 16
D. none of the above

2. The____created a model called the Open Systems Interconnection, which allows diverse systems to communicate.

A. OSI
B. ISO
C. IEEE
D. none of the above

3. The seven-layer_____model provides guidelines for the development of universally compatible networking protocols.

A. OSI
B. ISO
C. IEEE
D. none of the above

4. physical, data link, and network layers are the _____ support layers.

A. user
B. network
C. both (a) and (b)
D. neither (a) nor (b)

5. The session, presentation, and application layers are the ____ support layers.

A. user
B. network
C. both (a) and (b)
D. neither (a) nor (b)

6. The_____layer links the network support layers and the user support layers.

A. transport
B. network
C. data link
D. session

7. The_____layer coordinates the functions required to transmit a bit stream over a physical medium.

A. transport
B. network
C. data link
D. physical

8. The_____layer is responsible for delivering data units from one station to the next without errors.

A. transport
B. network
C. data link
D. physical

9. The_____layer is responsible for the source-to-destination delivery of a packet across multiple network links.

A. transport
B. network
C. data link
D. physical

10. The_____layer is responsible for the process-to-process delivery of the entire message.

A. transport
B. network
C. data link
D. physical

Answer key for MCQ SET- 4	
Q-1	Correct Answer :16
Q-2	Correct Answer :ISO
Q-3	Correct Answer :OSI
Q-4	Correct Answer :network
Q-5	Correct Answer :user
Q-6	Correct Answer :transport
Q-7	Correct Answer :physical
Q-8	Correct Answer :data link
Q-9	Correct Answer :network
Q-10	Correct Answer :transport

Network Model Multiple Choice Questions and Answers (MCQ) Set-5

1. The_____layer establishes, maintains, and synchronizes the interactions between communicating devices.

A. transport
B. network

C. session
D. physical

2. The_____layer ensures interoperability between communicating devices through transformation of data into a mutually agreed upon format.

A. transport
B. network
C. data link
D. presentation

3. The_____layer enables the users to access the network

A. transport
B. application
C. data link
D. physical

4. TCP/IP is a_____hierarchical protocol suite developed_____the OSI mode

A. seven-layer; before
B. five-layer; before
C. six-layer; before
D. five-layer; after

5. The TCP/IP_____layer is equivalent to the combined session, presentation, and application layers of the OSI model

A. application
B. network
C. data link
D. physical

6. The_____address, also known as the link address, is the address of a node as defined by its LAN or WAN

A. physical
B. IP
C. port
D. specific

7. The____address uniquely defines a host on the Internet

A. physical
B. IP
C. port
D. specific

8. The_____address identifies a process on a host

A. physical
B. IP
C. port
D. specific

Answer key for MCQ SET- 5	
Q-1	Correct Answer :session
Q-2	Correct Answer :presentation
Q-3	Correct Answer :application
Q-4	Correct Answer :five-layer; before
Q-5	Correct Answer :application
Q-6	Correct Answer :physical
Q-7	Correct Answer :IP
Q-8	Correct Answer :port
Q-9	
Q-10	

Digital Transmission multiple choice Questions and Answers MCQ Set-1

1. Unipolar, bipolar, and polar encoding are types of _____ encoding.

A. line
B. block
C. NRZ
D. Manchester

2. _____ encoding has a transition at the middle of each bit.

A. RZ
B. Manchester
C. Differential Manchester
D. All the above

3. _____ encoding has a transition at the beginning of each 0 bit.

A. RZ
B. Manchester
C. Differential Manchester
D. All the above

4. PCM is an example of_____conversion.

A. digital-to-digital
B. digital-to-analog
C. analog-to-analog
D. analog-to-digital

5. If the frequency spectrum of a signal has a bandwidth of 500 Hz with the highest frequency at 600 Hz, what should be the sampling rate, according to the Nyquist theorem?

A. 200 samples/s
B. 500 samples/s
C. 1000 samples/s
D. 1200 samples/s

6. The Nyquist theorem specifies the minimum sampling rate to be __.

A. equal to the lowest frequency of a signal
B. equal to the highest frequency of a signal
C. twice the bandwidth of a signal
D. twice the highest frequency of a signal

7. Which of the following encoding methods does not provide for synchronization?

A. NRZ-L
B. RZ
C. NRZ-I
D. Manchester

8. Which encoding method uses alternating positive and negative values for 1s?

A. NRZ-I
B. RZ
C. Manchester
D. AMI

9. Which quantization level results in a more faithful reproduction of the signal?

A. 2
B. 8
C. 16
D. 32

10. Block coding can help in_____at the receiver.

A. Synchronization
B. Error detection
C. Attenuation
D. (a) and (b)

Answer key for MCQ SET- 1	
Q-1	Correct Answer :line
Q-2	Correct Answer :All the above
Q-3	Correct Answer :Differential Manchester
Q-4	Correct Answer :analog-to-digital
Q-5	Correct Answer :1200 samples/s
Q-6	Correct Answer :twice the highest frequency of a signal
Q-7	Correct Answer :NRZ-L
Q-8	Correct Answer :AMI
Q-9	Correct Answer :32
Q-10	Correct Answer :(a) and (b)

Digital Transmission multiple choice Questions and Answers

MCQ Set-2

1. In_____transmission, bits are transmitted simultaneously, each across its own wire.

A. Asynchronous serial
B. Synchronous serial
C. Parallel
D. (a) and (b)

2. In_____transmission, bits are transmitted over a single wire, one at a time.

A. asynchronous serial
B. synchronous serial
C. parallel
D. (a) and (b)

3. In_____transmission, a start bit and a stop bit frame a character byte

A. asynchronous serial
B. synchronous serial
C. parallel

D. (a) and (b)

4. In asynchronous transmission, the gap time between bytes is ____

A. fixed
B. variable
C. a function of the data rate
D. zero

5. _____ conversion involves three techniques: line coding, block coding, and scrambling.

A. Analog-to-digital
B. Digital-to-analog
C. Analog-to-analog
D. Digital-to-digital

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

A. Block coding
B. Line coding
C. Scrambling
D. None of the above

7. _____ provides redundancy to ensure synchronization and inherent error detection.

A. Block coding
B. Line coding
C. Scrambling
D. None of the above

8. _____ is normally referred to as mB/nB coding; it replaces each m-bit group with an n-bit group.

A. Block coding
B. Line coding
C. Scrambling
D. None of the above

9. _____ provides synchronization without increasing the number of bits.

A. Scrambling
B. Line coding
C. Block coding
D. None of the above

10. Two common scrambling techniques are _____

A. NRZ and RZ
B. AMI and NRZ
C. B8ZS and HDB3
D. Manchester and differential Manchester

Answer key for MCQ SET- 2	
Q-1	Correct Answer :Parallel
Q-2	Correct Answer :(a) and (b)
Q-3	Correct Answer :asynchronous serial
Q-4	Correct Answer :variable
Q-5	Correct Answer :Digital-to-digital
Q-6	Correct Answer :Line coding
Q-7	Correct Answer :Block coding
Q-8	Correct Answer :Block coding
Q-9	Correct Answer :Scrambling
Q-10	Correct Answer :B8ZS and HDB3

Digital Transmission multiple choice Questions and Answers

MCQ Set-3

1. The_____mode provides synchronization for the entire stream of bits must. In other words, it guarantees that the data arrive at a fixed rate.

A. synchronous
B. asynchronous
C. isochronous
D. none of the above

2. A_____digital signal includes timing infor the data being transmitted.

A. self-synchronizing
B. self-modulated
C. self-transmitted
D. none of the above

3. In decoding a digital signal, the receiver calculates a running average of the received signal power, called the _____

A. baseline
B. base
C. line
D. none of the above

4. The most common technique to change an analog signal to digital data is called_____.

A. PAL
B. PCM
C. sampling
D. none of the above

5. The first step in PCM is _____

A. quantization
B. modulation
C. sampling
D. none of the above

6. There are three sampling methods: _____

A. quantized, sampled, and ideal
B. ideal, sampled, and flat-top
C. ideal, natural, and flat-top
D. none of the above

7. _____ finds the value of the signal amplitude for each sample;_finds the change from the previous sample.

A. DM; PCM
B. PCM; DM
C. DM; CM
D. none of the above

8. While there is (are) only_____way(s) to send parallel data, there is (are) three subclass(es) of serial transmission

A. one; two
B. two; three
C. one; three
D. none of the above

9. In_____transmission, we send 1 start bit (0) at the beginning and 1 or more stop bits (1s) at the end of each byte.

A. synchronous
B. asynchronous
C. isochronous
D. none of the above

10. In_____transmission, we send bits one after another without start or stop bits or gaps. It is the responsibility of the receiver to group the bits.

A. synchronous
B. asynchronous
C. isochronous
D. none of the above

Answer key for MCQ SET- 3	
Q-1	Correct Answer :isochronous
Q-2	Correct Answer :self-synchronizing
Q-3	Correct Answer :baseline
Q-4	Correct Answer :PCM
Q-5	Correct Answer :sampling
Q-6	Correct Answer :ideal, natural, and flat-top
Q-7	Correct Answer :PCM; DM
Q-8	Correct Answer :one; three
Q-9	Correct Answer :asynchronous
Q-10	Correct Answer :synchronous

Digital Transmission multiple choice Questions and Answers

MCQ Set-4

1. The_____rate defines the number of data elements sent in 1s; the_____rate is the number of signal elements sent in 1s

A. data; signal
B. signal; data
C. baud; bit
D. none of the above

2. The signal rate is sometimes called the_____rate

A. baud
B. bit
C. signal
D. none of the above

3. The data rate is sometimes called the_____rate

A. baud
B. bit
C. signal
D. none of the above

4. In a_____scheme, all the signal levels are on one side of the time axis, either above or below.

A. polar
B. bipolar
C. unipolar
D. all of the above

5. In_____schemes, the voltages are on the both sides of the time axis. For example, the voltage level for 0 can be positive and the voltage level for 1 can be negative.

A. polar
B. bipolar
C. unipolar
D. all of the above

6. In_____, the level of the voltage determines the value of the bit.

A. NRZ-I
B. NRZ-L
C. both (a) and (b)
D. neither (a) nor (b)

7. In_____, the change or lack of change in the level of the voltage determines the value of the bit.

A. NRZ-I
B. NRZ-L
C. both (a) and (b)
D. neither (a) nor (b)

8. The idea of RZ and the idea of NRZ-L are combined into the __scheme.

A. Manchester
B. differential Manchester
C. both (a) and (b)
D. neither (a) nor (b)

9. The idea of RZ and the idea of NRZ-I are combined into the _____ scheme

A. Manchester
B. differential Manchester
C. both (a) and (b)
D. neither (a) nor (b)

10. In_____encoding, the duration of the bit is divided into two halves. The voltage remains at one level during the first half and moves to the other level in the second half. The transition at the middle of the bit provides synchronization.

A. Manchester
B. differential Manchester
C. both (a) and (b)
D. neither (a) nor (b)

Answer key for MCQ SET- 4	
Q-1	Correct Answer :data; signal
Q-2	Correct Answer :baud
Q-3	Correct Answer :bit
Q-4	Correct Answer :unipolar
Q-5	Correct Answer :polar
Q-6	Correct Answer :NRZ-L
Q-7	Correct Answer :NRZ-I
Q-8	Correct Answer :Manchester
Q-9	Correct Answer :differential Manchester
Q-10	Correct Answer :both (a) and (b)

Digital Transmission multiple choice Questions and Answers

MCQ Set-5

1. In_____there is always a transition at the middle of the bit, but the bit values are determined at the beginning of the bit. If the next bit is 0, there is a transition; if the next bit is 1, there is none.

A. Manchester
B. differential Manchester
C. both (a) and (b)
D. neither (a) nor (b)

2. In Manchester and differential Manchester encoding, the transition at the middle of the bit is used for _____

A. bit transfer
B. baud transfer
C. synchronization
D. none of the above

3. The minimum bandwidth of Manchester and differential Manchester is_____that of NRZ.

A. the same as
B. twice
C. thrice
D. none of the above

4. In_____encoding, we use three levels: positive, zero, and negative

A. unipolar
B. bipolar
C. polar
D. none of the above

5. The_____scheme uses data patterns of size 2 and encodes the 2-bit patterns as one signal element belonging to a four-level signal

A. 4B5B
B. 2B1Q
C. MLT-3
D. none of the above

6. The_____scheme uses three levels (+V, 0, and -V) and three transition rules to move between the levels.

A. 4B5B
B. 2B1Q
C. MLT-3
D. none of the above

7. _____ substitutes eight consecutive zeros with 000VB0VB

A. B4B8
B. HDB3
C. B8ZS
D. none of the above

8. _____ substitutes four consecutive zeros with 000V or B00V

A. B4B8
B. HDB3
C. B8ZSf
D. none of the above

Answer key for MCQ SET- 5	
Q-1	Correct Answer :differential Manchester
Q-2	Correct Answer :synchronization
Q-3	Correct Answer :twice
Q-4	Correct Answer :bipolar

Q-5	Correct Answer :2B1Q
Q-6	Correct Answer :MLT-3
Q-7	Correct Answer :B8ZS
Q-8	Correct Answer :HDB3
Q-9	
Q-10	

1. ASK, PSK, FSK, and QAM are examples of _____ ___ conversion.

A. digital-to-digital
B. digital-to-analog
C. analog-to-analog
D. analog-to-digital

2. AM and FM are examples of_____conversion.

A. digital-to-digital
B. digital-to-analog
C. analog-to-analog
D. analog-to-digital

3. In QAM, both_____of a carrier frequency ar ɛ varied.

A. frequency and amplitude
B. phase and frequency
C. amplitude and phase
D. none of the above

4. If the baud rate is 400 for a QPSK signal, the bit rate is _____ bps.

A. 100

B. 400

C. 800

D. 1600

5. If the bit rate for an ASK signal is 1200 bps, the is ɪ aud rate _____.

A. 300

B. 400

C. 600

D. 1200

6. If the bit rate for an FSK signal is 1200 bps, the baud rate is _____.

A. 300

B. 400

C. 600

D. 1200

7. If the bit rate for a 16-QAM signal is 4000 bps, what is the baud rate?

A. 300

B. 400

C. 1000

D. 1200

8. If the baud rate for a 64-QAM signal is 2000, what is the bit rate?

A. 300

B. 400

C. 1000

D. 12000

9. Given an AM radio signal with a bandwidth of 10 KHz and the highest-frequency component at 705 KHz, what is the frequency of the carrier signal?

A. 700 KHz
B. 705 KHz
C. 710 KHz
D. Cannot be determined from given information

10. _____ conversion is the process of changing one of the

Characteristics of an analog signal based on the information in the digital data.

A. Digital-to-analog
B. Analog-to-analog
C. Analog-to-digital
D. Digital-to-digital

Answer key for MCQ SET- 1	
Q-1	Correct Answer :digital-to-analog
Q-2	Correct Answer :analog-to-analog
Q-3	Correct Answer :amplitude and phase
Q-4	Correct Answer :800
Q-5	Correct Answer :1200
Q-6	Correct Answer :1200
Q-7	Correct Answer :1000
Q-8	Correct Answer :12000
Q-9	Correct Answer :700 KHz
Q-10	Correct Answer :Digital-to-analog

Analog Transmission multiple choice Questions and Answers MCQ Set-2

1. Which of the following is not a digital-to-analog conversion?

A. ASK
B. PSK
C. FSK
D. AM

2. In_____, the amplitude of the carrier signal is varied to create signal elements. Both frequency and phase remain constant.

A. ASK
B. PSK
C. FSK
D. QAM

3. In_____, the frequency of the carrier signal is varied to represent data. B o th peak amplitude and phase remain constant.

A. ASK
B. PSK
C. FSK
D. QAM

4. In_____, the phase of the carrier is varied to represent two or more different signal elements. Both peak amplitude and frequency remain constant.

A. ASK
B. PSK
C. FSK
D. QAM

Answer key for MCQ SET- 2
Correct Answer :AM
Correct Answer :ASK
Correct Answer :FSK
Correct Answer :PSK

Analog Transmission multiple choice Questions and Answers MCQ Set-3

1. In_____transmis ion, the carrier signal is modulated so that its amplitude varies with the changing amplitudes of the modulating signal.

A. AM
B. PM
C. FM
D. none of the above

2. In_____transmissio n, the frequency of the carrier signal is modulated to follow the changing voltage level (amplitude) of the modulating signal. The peak amplitude and phase of the carrier signal remain constant, but as the amplitude of the information signal changes, the frequency of the carrier changes correspondingly.

A. AM
B. PM
C. FM
D. none of the above

3. In_____transmis ion, the phase of the carrier signal is modulated to follow the changing voltage level (amplitude) of the modulating sign l.

A. AM
B. PM
C. FM
D. none of the above

4. In_____, the peak amplitude of one signal level is 0; the other is the same as the amplitude of the carrier fr quency

A. PSK
B. OOK
C. FSK
D. none of the above

5. How many carrier frequencies are used in BASK?

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

6. How many carrier frequencies are used in BFSK?

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

7. How many carrier frequencies are used in BPSK?

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

Answer key for MCQ SET- 3	
Q-1	Correct Answer :AM
Q-2	Correct Answer :FM
Q-3	Correct Answer :PM
Q-4	Correct Answer :OOK
Q-5	Correct Answer :1
Q-6	Correct Answer :2
Q-7	Correct Answer :1

1. Transmission media are usually categorized as _

.

A. fixed or unfixed
B. guided or unguided
C. determinate or indeterminate
D. metallic or nonmetallic

2. Transmission media lie below the _____ layer.

A. physical
B. network
C. transport
D. application

3. _____ cable consists of an inner copper core and a second conducting outer sheath.

A. Twisted-pair
B. Coaxial
C. Fiber-optic
D. Shielded twisted-pair

4. In fiber optics, the signal is _____waves.

A. light
B. radio
C. infrared
D. very low-frequency

5. Which of the following primarily uses guided media?

A. cellular telephone system
B. local telephone system
C. satellite communications
D. radio broadcasting

6. Which of the following is not a guided medium?

A. twisted-pair cable
B. coaxial cable
C. fiber-optic cable
D. atmosphere

7. What is the major factor that makes coaxial cable less susceptible to noise than twisted-pair cable?

A. inner conductor
B. diameter of cable

C. outer conductor
D. insulating material

8. In an optical fiber, the inner core is _____ the cladding.

A. denser than
B. less dense than
C. the same density as
D. another name for

9. The inner core of an optical fiber is _____ in composition.

A. glass or plastic
B. copper
C. bimetallic
D. liquid

10. When a beam of light travels through media of two different densities, if the angle of incidence is greater than the critical angle,_____ occurs.

A. reflection
B. refraction
C. incidence
D. criticism

Answer key for MCQ SET- 1	
Q-1	Correct Answer :guided or unguided

Q-2	Correct Answer :physical
Q-3	Correct Answer :Coaxial

Q-4	Correct Answer :light
Q-5	Correct Answer :local telephone system
Q-6	Correct Answer :atmosphere
Q-7	Correct Answer :outer conductor
Q-8	Correct Answer :denser than
Q-9	Correct Answer :glass or plastic
Q-10	Correct Answer :reflection

Transmission Media Multiple choice questions and answers MCQ Set-2

1. When the angle of incidence is _____ the critical angle, the light beam bends along the interface.

A. more than
B. less than
C. equal to
D. none of the above

2. Signals with a frequency below 2 MHz use propagation.

A. ground
B. sky
C. line-of-sight
D. none of the above

3. Signals with a frequency between 2 MHz and 30 MHz use

_____ propagation

A. ground
B. sky
C. line-of-sight
D. none of the above

4. Signals with a frequency above 30 MHz use _____ propagation

A. ground
B. sky
C. line-of-sight
D. none of the above

5. A parabolic dish antenna is an _____ antenna.

A. omnidirectional
B. bidirectional
C. unidirectional
D. horn

6. An _____ medium provides a physical conduit from one device to another.

A. guided
B. unguided
C. either (a) or (b)
D. none of the above

7. _____ cable consists of two insulated copper wires twisted together.

A. Coaxial
B. Fiber-optic
C. Twisted-pair
D. none of the above

8. _____ cable is used for voice and data communications.

A. Coaxial
B. Fiber-optic

C. Twisted-pair
D. none of the above

9. _____ consists of a central conductor and a shield.

A. Coaxial
B. Fiber-optic
C. Twisted-pair
D. none of the above

10. _____ cable can carry signals of higher frequency ranges than _____cable.

A. Twisted-pair; fiber-optic
B. Coaxial; fiber-optic
C. Coaxial; twisted-pair
D. none of the above

Answer key for MCQ SET- 2	
Q-1	Correct Answer :equal to
Q-2	Correct Answer :ground
Q-3	Correct Answer :sky
Q-4	Correct Answer :line-of-sight
Q-5	Correct Answer :unidirectional
Q-6	Correct Answer :unguided
Q-7	Correct Answer :Twisted-pair
Q-8	Correct Answer :Twisted-pair
Q-9	Correct Answer :Coaxial
Q-10	Correct Answer :Coaxial; twisted-pair

1. _____ cables are composed of a glass or plastic inner core surrounded by cladding, all encased in an outside jacket.

A. Coaxial
B. Fiber-optic
C. Twisted-pair
D. none of the above

2. _____ cables carry data signals in the form of light.

A. Coaxial
B. Fiber-optic
C. Twisted-pair
D. none of the above

3. In a fiber-optic cable, the signal is propagated along the inner core by_____

A. reflection
B. refraction
C. modulation
D. none of the above

4. _____ media transport electromagnetic waves without the use of a physical conductor

A. Guided
B. Unguided
C. Either (a) or (b)
D. None of the above

5. Radio waves are

A. omnidirectional
B. unidirectional
C. bidirectional
D. none of the above

6. Microwaves are_

A. omnidirectional
B. unidirectional
C. bidirectional

D. none of the above

7. _____ are used for cellular phone, satellite, and wireless LAN communications.

A. Radio waves
B. Microwaves
C. Infrared waves
D. none of the above

8. _____ are used for short-range communications such as those between a PC and a peripheral device.

A. Radio waves
B. Microwaves
C. Infrared waves
D. none of the above

Answer key for MCQ SET- 3	
Q-1	Correct Answer :Fiber-optic
Q-2	Correct Answer :Fiber-optic
Q-3	Correct Answer :reflection
Q-4	Correct Answer :Unguided
Q-5	Correct Answer :omnidirectional
Q-6	Correct Answer :unidirectional
Q-7	Correct Answer :Microwaves
Q-8	Correct Answer :Infrared waves
Q-9	
Q-10	