



In the Name of Allāh, the Most Gracious, the Most Merciful

## Final Term Papers Solved MCQS with Reference

- The \_\_\_\_\_ deals with mechanical and electrical specifications of transmission medium and interface.
  - Transport Layer
  - Data link Layer
  - **Physical Layer** PG # 44 ( Lec # 8 )
  - Presentation Layer
- Standards are developed by \_\_\_\_\_ types of organizations.
  - 2
  - **3** PG # 23 ( Lec # 4 )
  - 4
  - 1
- In periodic signals “one completion of a specific pattern” is termed as \_\_\_\_\_.
  - Frequency
  - Amplitude
  - **Cycle** PG # 58 ( Lec # 11 )
  - Time period
- Mostly broad band standards like ATM and frame relay are developed under \_\_\_\_\_.
  - ITU-T
  - IEEE
  - **Forums** PG # 24 & 25 ( Lec # 4 )
  - ISO

5. \_\_\_\_\_ is not a standard creation committee.

- IETF** PG # 24 ( Lec# 4 )
- ITU-T
- IEEE
- ISO

6. \_\_\_\_\_ can be used to overcome the problem of unidirectional traffic flow in ring topology.

- Frame relay
- ATM
- Dual ring** PG # 34 ( Lec# 6 )
- Hub

7. \_\_\_\_\_ is measured on the horizontal axis in time domain plot.

- Phase
- Time** PG # 63
- Amplitude
- Frequency

8. Modulation of an analog signal can be accomplished through changing the \_\_\_\_\_ of the carrier signal.

- EMI
- Amplitude, Phase and Frequency** PG # 86 ( Lec # 17 )
- Line code
- Bandwidth

9. In \_\_\_\_\_ transmission, bits are transmitted simultaneously, each across its own wire.

- Asynchronous serial
- Synchronous serial
- Parallel**
- Asynchronous and Synchronous serial

10. A \_\_\_\_\_ converts an analog signal into a digital signal.

- Modulator
- Router
- Bridge
- Demodulator** PG # 110 ( Lec # 2 )

11. The range of radio communication is \_\_\_\_\_ .

- 30 KHz to 30 GHz
- 3 KHz to 300 GHz** PG # 132 ( Lec # 26 )
- 300 KHz to 300 GHz
- 3 MHz to 300 GHz

12. \_\_\_\_\_ is popular for supporting higher bandwidth and higher data rate.

- Coaxial Cable
- Optical Fiber**
- STP
- UTP

**PG # 131 ( Lec # 26 )**

13. The section of EM spectrum defined as radio communication is divided into \_\_\_\_\_ ranges called Bands.

- 5
- 6
- 8**
- 10

**PG # 132 ( Lec # 26 )**

14. Radio wave transmission utilizes \_\_\_\_\_ different types of propagation.

- Two
- Three
- Four
- Five**

**PG # 132 & 133 ( Lec # 26 )**

15. A parabolic dish antenna is a(n) \_\_\_\_\_ antenna.

- Omnidirectional
- Bidirectional
- Unidirectional**
- Horn

16. \_\_\_\_\_ radio waves are radiated upward into the ionosphere where they are reflected back to earth.

- Low frequency
- Higher frequency**
- Very low frequency
- Middle frequency

**PG # 134 ( Lec # 26 )**

17. The VLF and LF bands use \_\_\_\_\_ propagation for communications.

- Surface**
- Sky
- Line of sight
- Space

**PG # 135 ( Lec # 27 )**

18. There are \_\_\_\_\_ basic categories of multiplexing.

- 2
- 3**
- 4
- 5

**PG # 148 ( Lec # 29 )**

19. \_\_\_\_\_ uses a series of filters to decompose multiplexed signal into its constituent signals.

- DEMUX**                      **PG # 150 ( Lec # 29 )**
- Modulator
- Demodulator
- MUX

20. A portion of a communication medium that carries data between a given pair of devices is known as \_\_\_\_\_.

- Node
- Noise
- Channel**                      **PG # 147 ( Lec # 29 )**
- Gateway

21. Data link control is composed of \_\_\_\_\_ important functions.

- 1
- 2
- 3**                                      **PG # 186 ( Lec # 36 )**
- 4

22. \_\_\_\_\_ coordinates the amount of data that can be sent before receiving acknowledgment.

- Error control
- Flow control**                      **PG # 186 ( Lec # 36 )**
- Link control
- Line discipline

23. In line discipline, the initiator first transmits a frame called an \_\_\_\_\_.

- Enquiry**                              **PG # 189 ( Lec # 37 )**
- Acknowledgment
- NAK
- EOT

24. In line discipline, the sending system finishes data transmission by sending a(n) \_\_\_\_\_ frame.

- EOT**                                      **PG # 189 ( Lec # 37 )**
- ACK
- ENQ
- POLL

25. ENQ/ACK stands for\_\_\_\_\_.

- Enque/ Acknowledgment
- Enquist/ Acknowledgment
- Enquiry/ Acknowledgment**                      **PG # 187 ( Lec # 36 )**
- Enquestion / Acknowledgement

26. Data link protocols can be divided into \_\_\_\_\_ sub-groups.

- Two** PG # 202 ( Lec # 39 )
- Three
- Four
- Five

27. Sliding Window mechanism requires data frames to be transmitted \_\_\_\_\_.

- In reverse order
- Without order
- Sequentially** PG # 199 ( Lec # 39 )
- Twice

28. YMODEM supports \_\_\_\_\_ Bytes data unit.

- 128
- 256
- 512
- 1024** PG # 205 ( Lec # 40 )

29. BLAST stands for \_\_\_\_\_ .

- Blocked asynchronous transmission** PG # 205 ( Lec # 40 )
- Blocked synchronous transmission
- Barrel asynchronous transmission
- Below asynchronous transmission

30. \_\_\_\_\_ is a bus topology LAN that uses base band signaling and has a max. segment length of 500 meters.

- 10 Base5** PG # 223 ( Lec # 42 )
- 10 Base2
- 100 Base2
- 100 BaseT

31. The DSAP and SSAP are addresses used by \_\_\_\_\_ to identify the protocol stacks.

- MAC
- LLC** PG # 220 ( Lec # 42 )
- Physical
- Network

32. \_\_\_\_\_ supports a data rate of 10 Mbps and has a maximum length of 100 meters.

- 10 Base5
- 10 BaseT** PG # 228 ( Lec # 43 )
- 10 Base100
- 10 Base10

33. The BNC-T connector is a T-shaped device with \_\_\_\_\_ port(s).

- 1
- 2
- 3
- 4

**PG # 228 ( Lec # 43 )**

34. Bridges can divide a large \_\_\_\_\_ into smaller segments.

- Network
- Packet
- Frame
- Address

**PG # 241 ( Lec # 45 )**

35. RARP stands for \_\_\_\_\_.

- Reverse Address Revolution Protocol
- Reverse Address Resolution Protocol
- Reverse Address Routing Protocol
- Reverse Address Reverse Protocol

**PG # 244 ( Lec # 45 )**

36. Signal losses its energy when \_\_\_\_\_ occurs.

- Noise
- Distortion
- Attenuation
- Amplification

**PG # 142 ( Lec # 28 )**

37. Europeans use a version of T-lines called \_\_\_\_\_ .

- F-lines
- E-lines
- D-lines
- S-lines

**PG # 166 ( Lec # 32 )**

38. FTTC stands for \_\_\_\_\_.

- Flexible to the curb
- Fiber to the curb
- Fiber to the cable
- Fiber to the center

**PG # 166 ( Lec # 32 )**

39. \_\_\_\_\_ error detection method involves polynomials.

- Checksum
- LRC
- CRC
- VRC

**PG # 177 ( Lec # 34 )**

40. According to odd parity for error detection, if the number of 1's in the data segment are \_\_\_\_\_ then 0 is attached.

- Even
- Odd**
- Twelve
- Ten

Note: In asynchronous communication systems, odd parity refers to parity checking modes, where each set of transmitted bits has an odd number of bits. If the total number of ones in the data plus the parity bit is an odd number of ones, it is called odd parity. If the data already has an odd number of ones, the value of the added parity bit is 0, otherwise it is 1.

41. Line configuration is the function of \_\_\_\_\_ layer.

- Data link
- Network
- Physical**
- Transport

**PG # 45 ( Lec # 34 )**

42. \_\_\_\_\_ decompose a composite signal into its components.

- Fourier analysis**
- Nyquist theorem
- Carrier frequency
- Shannon capacity

**PG # 64 ( Lec # 12 )**

43. Wave position relative to zero is measured by \_\_\_\_\_ .

- Frequency
- Time Period
- Phase**
- Amplitude

44. The information to be communicated in a data communication system is the\_\_\_\_\_.

- Medium
- Protocol
- Message**
- Transmission

**PG # 7 ( Lec # 1 )**

45. In a network, \_\_\_\_\_ is the conduit between network nodes over which data moves.

- Link
- Path
- Circuit**
- Conductor

**PG # 12 ( Lec # 2 )**







52. The speed of light is \_\_\_\_\_ in vacuume.

- 3 Km/s
- 300 Km/s
- 300,000 Km/s**
- 300,00 Km/s

**PG # 119 ( Lec # 25 )**

53. Type of Optical Fiber cable is defined by the ratio of the \_\_\_\_\_ of its core to the diameter of its cladding.

- Diameter**
- Radius
- Length
- Density

**PG # 130 ( Lec # 26 )**

54. A prism deflects the light depending upon the angle of \_\_\_\_\_ and the frequency.

- Deviation
- Incidence**
- Refraction
- Reflection

**PG # 151 ( Lec # 29 )**

55. By using \_\_\_\_\_, data of one high speed line can be broken into multiple low speed streams.

- Multiplexing
- Inverse Multiplexing**
- TDM
- Asynchronous TDM

**PG # 158 ( Lec # 30 )**

56. In primary-secondary communication process, session is always initiated by \_\_\_\_\_.

- Secondary device
- Intermediate device
- Any receiving device
- Primary device**

**PG # 189 ( Lec # 37 )**

57. Addressing is not needed in \_\_\_\_\_ configuration in the perspective of line discipline.

- Routers
- Point to Point**
- Multipoint
- Multipoint and Point to Point

**PG # 190 ( Lec # 37 )**

58. Primary device uses \_\_\_\_\_ to receive transmission from the secondary devices.

- ACK
- ENQ
- POLL**
- PSK

**PG # 191 ( Lec # 37 )**

59. If sender sent some frames from 0 to 10 and received the 'ACK 5' then according to the method Go-Back-N ARQ, the receiver has received \_\_\_\_\_ frame(s)

- 0
- 0 to 5**
- 0 to 4
- 0 to 10

**PG # 199**

60. The \_\_\_\_\_ field defines the beginning and ending of an HDLC frame.

- Flag**
- Address
- Control
- FCS

**PG # 213 ( Lec # 41 )**

61. The \_\_\_\_\_ bit of the DSAP indicates whether the frame is intended for an individual or a group.

- First**
- Second
- Third
- Last

**PG # 220 ( Lec # 42 )**

62. \_\_\_\_\_ is the access protocol used by traditional Ethernet.

- CSMA
- CSMA/DC
- CSMA/CD**
- CSMA/CC

**PG # 222 ( Lec # 42 )**

63. In FDDI, THT stands for \_\_\_\_\_.

- Target Holding Timer
- Tier Holding Timer
- Token Hash Timer
- Token Holding Timer**

**PG # 236 ( Lec # 44 )**

64. A telephone network is an example of a \_\_\_\_\_ network.

- Packet-switched
- Circuit-switched**
- Message-switched
- Frame-switched

**PG # 38 ( Lec # 6 )**

65. The data rate of a T-1 line is \_\_\_\_\_.

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

**PG # 164 & 165 ( Lec # 32 )**

66. If the ASCII character H is sent and the character I is received, then \_\_\_\_\_ type of error is occurred.
- Single-bit**
  - ASCII error
  - Burst
  - Undetectable
67. In CRC there is no error if the remainder at the receiver side is \_\_\_\_\_.
- Equal to the remainder at the sender side
  - Zero** PG # 176 ( Lec # 34 ) [Click Here For Reference](#)
  - Nonzero
  - Equal to the quotient at the sender side
68. At the CRC generator, \_\_\_\_\_ added to the data unit before the division process.
- A polynomial is
  - A CRC remainder is
  - 0's are** PG # 176 ( Lec # 34 )
  - 1's are
69. At the CRC generator, \_\_\_\_\_ is (are) added to the dataword after the division process to create the codeword.
- 0's are
  - The remainder**
  - 1's are
  - The divisor
70. IEEE divided the Baseband category into \_\_\_\_\_ standards.
- 2
  - 3
  - 4
  - 5** PG # 222 ( Lec # 42 )

IEEE divides the base band category into 5 standards: –10 Base 5 , 10 Base 2, 10 Base-T, 1 Base 5, 100 Base-T

71. Telephony and telegraphy standards are mostly developed by \_\_\_\_\_.
- ISO
  - ITU-T** PG # 24 ( Lec # 4 )
  - ANSI
  - IEEE

72. In generic, the central element of network having star topology is a \_\_\_\_\_.

- Server
- Twisted pair cable
- Work station
- Hub**

**PG # 30 ( Lec # 5 )**

73. In mesh topology, if there are five nodes then there will be \_\_\_\_\_ links.

- 5
- 10**
- 15
- 20

**PG # 29 ( Lec # 5 )**

**No. of Links=  $5(5-1)/2 = 10$**

74. \_\_\_\_\_ works to synchronize the communication.

- Transport layer
- Presentation layer
- Session layer**
- Network layer

**PG # 50 ( Lec # 9 )**

75. Using \_\_\_\_\_ encoding scheme in digital transmission, we represent 0 by 0 voltage level and represent 1 by any positive voltage level.

- Polar
- Unipolar**
- AMI
- Bipolar

**PG # 71 ( Lec # 14 )**

76. In Alternate mark inversion, the term mark is related to \_\_\_\_\_.

- Telegraphy**
- Telephony
- Digital telephony
- Computing

**PG # 77 ( Lec # 15 )**

77. \_\_\_\_\_ modulation technique requires more bandwidth.

- FSK**
- ASK
- PSK
- QAM

**[Click Here For More Detail](#)**

**Note: FSK modulation requires more bandwidth than ASK and PSK.**

78. FSK requires a minimum bandwidth equal to its \_\_\_\_\_ plus the frequency shift.

- Bit rate
- Baud rate**
- Frequency
- Amplitude

PG # 89 ( Lec # 18 )

79. According to \_\_\_\_\_ data rate is directly proportional to signal-to-noise ratio.

- CRC
- Hamming Code
- Shannon's Formula**
- Nyquist Theorem

PG # 115 ( Lec # 23 )

80. In \_\_\_\_\_ propagation, low-frequency radio waves hug the earth.

- Surface**
- Sky
- Line of Sight
- Space

PG # 133 ( Lec # 26 )

81. Asynchronous TDM is efficient only when the size of the time slot is kept relatively \_\_\_\_\_.

- Large**
- Small
- Medium
- Equal

PG # 158 ( Lec # 30 )

82. For a sliding window of size  $n-1$  ( $n$  sequence numbers), there can be a maximum of \_\_\_\_\_ frames sent without an acknowledgement.

- n**
- $n-1$
- $n+1$
- 0

83. In Stop-and-Wait ARQ if  $N$  data packets sent then \_\_\_\_\_ acknowledgments are needed.

- N**
- $2N$
- $N-1$
- $N+1$

84. In \_\_\_\_\_ multiple files can be sent simultaneously.

- XMODEM
- YMODEM**            **PG # 205 ( Lec # 40 )**
- TMODEM
- EMODEM

85. CSMA/CD stands for\_\_\_\_\_.

- Carrier sense multiple access/collision detection**            **PG # 222 ( Lec # 42 )**
- Collision sense multiple access/collision detection
- Collision stop multiple access/collision detection
- Control software multiple access/collision detection

86. In Fast Ethernet, the maximum supported data rate is \_\_\_\_\_.

- 10Mbps
- 100Mbps**            [Click Here For More Detail](#)
- 1Gbps
- 10Gbps

87. In FDDI, \_\_\_\_\_ passing is used as Access method.

- Ticket
- Packet
- Token**            **PG # 236 ( Lec # 44 )**
- Frame

88. Optical signals are multiplexed using \_\_\_\_\_.

- WDM**            **PG # 167 ( Lec # 32 )**
- FDM
- TDM
- MDM

89. At the CRC generator, \_\_\_\_\_ added to the data unit after the division process.

- 0s are**            **PG # 176 ( Lec # 34 )**
- 1s are
- The polynomial
- The remainder

90. Resuming an activity (because interruption in data transmission) at some focal point is called\_\_\_\_\_.

- Security
- Recovery**            **PG # 18 ( Lec # 3 )**
- Flow control
- Error detection

91. Two devices have started their communications that are attached with each other through coaxial cable. What function coaxial cable will perform here?

- Medium**                      **PG # 8 ( Lec # 1 )**
- Path
- Link
- Node

92. \_\_\_\_\_ is used to define the direction of the signal flow between the linked devices.

- Transmission mode**                      **PG # 34 ( Lec # 6 )**
- Transmission Media
- Transmission impairments
- Attenuation

93. Service point addressing is also termed as \_\_\_\_\_.

- Port Addressing**                      **PG # 49 ( Lec # 9 )**
- Logical Addressing
- IP Addressing
- Physical Addressing

94. \_\_\_\_\_ layer deals with syntax and semantics of information to be exchanged.

- Presentation**                      **PG # 51 ( Lec # 9 )**
- Session
- Application
- Physical

95. Recording data point at some discrete levels is termed as \_\_\_\_\_.

- Analog data
- Digital data**                      **PG # 56 ( Lec # 11 )**
- Infinite Frequency
- Continuous Signal

96. ASK, PSK, FSK and QAM are examples of \_\_\_\_\_ modulation.

- Digital to digital
- Digital to analog**                      **PG # 84 & 85 ( Lec # 17 )**
- Analog to analog
- Analog to digital

97. EIA 449 uses \_\_\_\_\_ standards to define its electrical specifications.

- RS-422, RS423**                      **PG # 108 ( Lec # 22 )**
- RS-422, RS532
- RS-412, RS333
- RS-413, RS321



98. In Cable Modems, the BW is normally divided into \_\_\_\_\_ bands using FDM.

- 6MHz**                      **PG # 118 ( Lec # 24 )**
- 60MHz
- 8MHz
- 80MHz

99. Ultra high-frequency waves always use \_\_\_\_\_ propagation.

- Surface
- Sky
- Line of Sight**                      **PG # 136 ( Lec # 27 )**
- Space

100. Using \_\_\_\_\_ technique, MUX adds extra bits to data.

- Bit Stuffing**                      **PG # 156 ( Lec # 30 )**
- Decompression
- Switching
- Exchanging

101. The \_\_\_\_\_ field defines the beginning and ending of an HDLC frame.

- Address
- Control
- FCS
- Flag**                                      **PG # 213 ( Lec # 41 )**

102. Control Frame in HDLC contains \_\_\_\_\_.

- 2-byte CRC
- 4-byte CRC
- P/F bit**                                      **PG # 215 ( Lec # 41 )**
- Address of Secondary device

103. Data from computer is in \_\_\_\_\_ form while the local loop handles \_\_\_\_\_ signals.

- Analog, analog
- Analog, digital
- Digital, digital
- Digital, analog**

104. In the process of CRC, \_\_\_\_\_ has not any importance and is not attached with data at sender/receiver side.

- Quotient**
- Divisor
- Dividend
- Remainder

105. In the process of CRC, the quotient at the sender is \_\_\_\_\_.

- The dividend at the receiver
- The divisor at the receiver
- Ignored**
- The remainder at receiver

106. The amplitude of a digital signal depends upon the \_\_\_\_\_ to represent a bit.

- Phase
- Voltage**            **PG # 73 ( Lec # 14 )**
- Wavelength
- Bandwidth

107. Secondary hub in a tree structure would be \_\_\_\_\_ .

- Active hub
- Passive hub
- Central hub**            **PG # 31 ( Lec # 5 )**
- Prioritized hub

108. In a typical data communication environment, information must be converted into \_\_\_\_\_ before putting over the transmission medium.

- Electromagnetic signal**    **PG # 8 ( Lec # 1 )**
- Protocol
- Data
- Digital data

109. Frequency of a network failure and the time it takes to recover after a failure, measures the \_\_\_\_\_ of a network.

- Reliability**            **PG # 15 ( Lec # 2 )**
- Security
- Feasibility
- Performance

110. \_\_\_\_\_ is not an element of a protocol.

- Semantics
- Timing
- Communication service module**            **PG # 19 ( Lec # 3 )**
- Syntax

111.A \_\_\_\_\_ provides a model for products manufactured by different manufacturers to operate together.

- Protocol
- Standard** PG # 22 ( Lec # 4 )
- Topology
- System

112.In \_\_\_\_\_ transmission mode, both stations can transmit and receive simultaneously.

- Simplex
- Half Duplex
- Full Duplex** PG # 35 ( Lec # 6 )
- Data

113.In 8QAM each signal shift or one baud represents \_\_\_\_\_ bits.

- 4
- 2
- 5
- 3** PG # 93 ( Lec # 18 )

114.There are \_\_\_\_\_ types of serial transmission.

- 1
- 2** PG # 99 ( Lec # 20 )
- 3
- 4

115.At the switching station, \_\_\_\_\_ data is converted to \_\_\_\_\_ using inverse PCM.

- Digital, Digital
- Digital, Analog** PG # 116 ( Lec # 23 )
- Analog, Analog
- Analog, Digital

116.At the switching station, \_\_\_\_\_ data is converted to \_\_\_\_\_ using PCM.

- Digital, Digital
- Digital, Analog
- Analog, Analog
- Analog, Digital** PG # 116 ( Lec # 23 )

117.\_\_\_\_\_ is a technique which specifically works on light beams.

- FDM
- WDM**
- TDM
- CDM

118. Multiplexing is the set of techniques that allows simultaneous transmission of multiple signals across \_\_\_\_\_ data link(s).

- Multiple
- Single**                      **PG # 147 ( Lec # 29 )**
- Double
- Different

119. \_\_\_\_\_ layer is the closest layer to the transmission medium.

- Physical**
- Data link
- Network
- Transport

120. Error control is \_\_\_\_\_.

- Both detection and correction**    **PG # 186 ( Lec # 36 )**
- Only detection
- Only correction
- Both detection and forwarding

121. \_\_\_\_\_ sub-layer resolves the contention between the devices for the shared media.

- MAC**                      **PG # 219 ( Lec # 42 )**
- LLC
- Physical
- Network

122. At the CRC checker, \_\_\_\_\_ means that the data unit is not damaged.

- All 0s in remainder
- A string of 1s in remainder
- A string of alternating 1s and 0s in remainder
- A nonzero remainder**

123. \_\_\_\_\_ uses a series of filters to decompose multiplexed signal into its constituent signals.

- Modulator
- Demodulator
- MUX
- DEMUX**                      **PG # 150 ( Lec # 29 )**

124. Using file transfer protocol architecture, file transfer requires \_\_\_\_\_ number of modules to transfer that file.

- 4
- 3
- 2
- 1

**PG # 20 ( Lec # 3 )**

File transfer application

Communication service module

Network access module

125. If transmission speed of a signal is 128(bps) then it means \_\_\_\_\_.

- Bit Rate: 1/128 bits per second
- Bit Rate: 128 bits per second**
- Bit rate: 0.0078bits per second
- Bit Rate: 64 Bits per second

126. Upper layers of OSI model are considered as \_\_\_\_\_ support layer.

- Hardware
- Software**
- Both Hardware and Software
- Network

**PG # 42 ( Lec # 7 )**

127. The collection of all component frequencies is called \_\_\_\_\_.

- Throughput
- Frequency spectrum**
- Bandwidth
- Wavelength

**PG # 66 ( Lec # 13 )**

128. \_\_\_\_\_ has the features of both XMODEM and YMODEM.

- XMODEM
- YMODEM
- ZMODEM**
- EMODEM

**PG # 205 ( Lec # 40 )**

129. HDLC is an acronym for \_\_\_\_\_.

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

**PG # 210 ( Lec # 41 )**

130.FDDI stands for \_\_\_\_\_.

- Fiber Distributed Data Interface** PG # 218 ( Lec # 42 )
- Flexible Distributed Data Interface
- Fast Distributed Data Interface
- Fiber Distorted Data Interface

131.Repeater works on \_\_\_\_\_ layer.

- Data Link
- Physical** PG # 240 ( Lec # 45 )
- Network
- Application

132.In extremely noisy channel signal to noise ratio is approximately equal to \_\_\_\_\_.

- 0** PG # 145 ( Lec # 28 )
- 1
- 2
- 3

133.\_\_\_\_\_ error detection method uses one's complement.

- Simple parity check
- Two-dimensional parity check
- Cyclic Redundancy Check
- Checksum** PG # 179 ( Lec # 35 )

134.Digital data is modulated by \_\_\_\_\_.

- ISP
- Computer
- Switching station
- Modem** PG # 115 ( Lec # 23 )

135.At the beginning of transmission, the receiver window contains \_\_\_\_\_ spaces for frames in sliding window mechanism.

- n
- n-1** PG # 195 ( Lec # 38 )
- n+1
- 1/n

136. NAK frames carry the number of the \_\_\_\_\_ frame itself.

- Sent
- Received
- Damaged** PG # 199 ( Lec # 39 )
- Lost

137.A \_\_\_\_ UTP of not more than 100 meters connects the NIC to the appropriate port in 10 Base T Hub.

- 4 pair** **PG # 229 ( Lec # 43 )**
- 3 pair
- 2 pair
- 5 pair

138. \_\_\_\_\_ control is extended to include retransmission of data in case of lost or damaged frames

- Stop and wait ARQ** **PG # 197 ( Lec # 38 )**
- Go back n
- Selective reject
- Selective repeat

139.As the data packet moves from the lower to the upper layers, headers are\_\_\_\_\_

- Added
- Subtracted**
- Rearranged
- Modified

140.As the data packet moves from the upper to the lower layers, headers are\_\_\_\_\_

- Added**
- Subtracted
- Rearranged
- Modified

141.When data are transmitted from device A to device B, the header attached by layer 4 of device A is read by layer\_\_\_\_\_of device B.

- 2
- 3
- 4** **PG # 41 ( Lec # 7 )**
- 5

142.\_\_\_\_\_is a modulation technique which involves tri-bits, eight different phase shifts, and one amplitude.

- FSK
- 8-PSK**
- ASK
- 4-PSK

143.Error control in the data link layer is based on\_\_\_\_\_.

- Automatic repeat request** **PG # 196 ( Lec # 38 )**
- Automatic repeat acknowledgment
- Automatic send acknowledgment
- Automatic



144. In a Go-Back-N ARQ, if the window size is 16 then range of sequence number will be\_\_\_\_\_.

- 0 to 16**
- 0 to 15
- 1 to 16
- 1 to 17

145. LAPB stands for\_\_\_\_\_ .

- Link access protocol, bounded
- Link access protocol, balanced
- Link access procedure, bounded
- Link access procedure, balanced** PG # 217 ( Lec # 41 )

146. One Multi station Access Unit can support upto\_\_\_\_\_ stations.

- 6
- 7
- 8** PG # 235 ( Lec # 44 )
- 9

147. BNC connectors are used by \_\_\_\_\_ cables.

- UTP
- STP
- Coaxial** PG # 125 ( Lec # 25 )
- Fiber

148. \_\_\_\_\_ measures the relative strength of the two signals or a signal at two different points.

- Decibel** PG # 141 ( Lec # 27 )
- Data rate
- Baud rate
- Frequency

149. The very low frequency (VLF) and low frequency (LF) bands use\_\_\_\_\_ propagation for communications.

- Surface** PG # 135 ( Lec # 27 )
- Sky
- Line of sight
- Space

150. \_\_\_\_\_ uses inversion at the middle of each bit interval for both synchronization and bit representation.

- NRZ-I
- NRZ-L
- AMI
- Manchester** PG # 76 ( Lec # 15 )

151. In case of ASK, a bit is represented by varying the \_\_\_\_\_ of a carrier signal.

- Amplitude
- Frequency
- Timing**                      **PG # 86 ( Lec # 17 )**
- Phase

**Note : Read Carrier Signals and Amplitude Shift Keying (ASK) Headings**

152. There are \_\_\_\_\_ possible variations of 16 QAM.

- Two
- Three**                      **PG # 93 ( Lec # 18 )**
- Four
- Five

153. The \_\_\_\_\_ generates the data and passes it along with any control information to a \_\_\_\_\_.

- DTE, DCE**                      **PG # 101 ( Lec # 21 )**
- DCE, DTE
- DCE, Nnode
- DTE, Application

154. \_\_\_\_\_ usually serves as backbone.

- Giga bit Ethernet**                      **PG # 232 ( Lec # 43 )**
- Thick Ethernet
- Thin Ethernet
- Fast Ethernet

155. The Hamming code is used for \_\_\_\_\_ .

- Multiplexing
- De-Multiplexing
- Encryption of data
- Detection and correction of errors**

**Note: Hamming code is a set of error-correction code s that can be used to detect and correct bit**

156. \_\_\_\_\_ layer converts the sender dependent data format into a common format.

- Physical
- Presentation**                      **PG # 52 ( Lec # 10 )**    [Click Here For Reference](#)
- Data link
- Application

157. Change in the file contents during file transmission can be avoided by employing \_\_\_\_\_ system.

- Routing
- Error Detection and Correction**    PG # 18 ( Lec # 3 )
- Flow Control
- Congestion Control

158. Specifying the common data format before the beginning of data transmission process comes under \_\_\_\_\_.

- Synchronization process**    [Click Here For Reference](#)
- Signal Generation process
- Exchange management process
- Flow control process

159. \_\_\_\_\_ layer of OSI model does not attach header to message.

- Network**
- Data Link
- Session
- Physical

**Note: A logical grouping of bytes that includes the network layer header and encapsulated data, but specifically does not include any headers and trailers below the network layer.**

160. \_\_\_\_\_ is a technique which is more affected by noise.

- ASK**                            PG # 87 ( Lec # 17 )
- FSK
- PSK
- QAM

161. At the \_\_\_\_\_ layer, a DCE takes data generated by a DTE.

- Physical**                        PG # 101 ( Lec # 21 )
- Transport
- Data link
- Application

162. Using synchronous Time Division Multiplexing, in network of 20 computers, the speed of transmission line must be at least \_\_\_\_\_ times the speed of each input line.

- 30
- 10
- 20**                                PG # 156 ( Lec # 30 )
- 5

163. \_\_\_\_\_ changes the rate of digital data created by the subscriber's device to 56 Kbps and encodes it in the format used by service provider.

- DSU (Digital Service Unit)**      **PG # 163 ( Lec # 31 )**
- ASU (Analog Service Unit)
- FDM (Frequency Davison Multiplexing)
- DDS (Digital Data Service)

164. EIA 449 uses \_\_\_\_\_ standards to define its electrical specifications.

- 2**      **PG # 108 ( Lec # 22 )**
- 3
- 4
- 5

165. CDDI stands for \_\_\_\_\_

- Control version of FDDI
- Copper version of FDDI**      **PG # 236 ( Lec # 44 )**
- Common version of FDDI
- Co-version of FDDI

166. Radio is an example of \_\_\_\_\_ signal conversion.

- Analog to analog**      **PG # 95 ( Lec # 19 )**
- Analog to digital
- Digital to digital
- Digital to analog

**Note: Give me a feedback and your Suggestion also If you find any mistake in mcqz plz inform me Via Contact us Page on our Site. And tell me your answer with references.**

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*Winning is not everything,  
but wanting to win is  
everything.....  
Go Ahead..... Best Of Luck !*