

1. Decryption and encryption of data are the responsibility of the _____ Layer.

- A. Data Link
- B. Presentation
- C. Network
- D. Transport

2. The header length of the UDP segment is_____.

- A. 10 Byte
- B. 8 Byte
- C. 20 Byte
- D. 16 Byte

3. One of the following protocols is different from the other protocols

- A. Telnet
- B. FTP
- C. TCP
- D. HTTP
- E. SMTP

4. Which of the following can be used as a solution for network congestion solution?

- A. Policies
- B. Congestion notification
- C. Buffer management
- D. A and B
- E. All

5. Routers work at which of the following OSI layers?

- A. Transport
- B. Physical
- C. Network

D. Data-link

E. None

6. Which of the following protocols is used to monitor network devices such as hubs, switches, and routers?

A. SMTP

B. SNMP

C. RIP

D. OSPF

7. In CRC, there is no error if the remainder at the receiver is equal to _____

A. Zero

B. Nonzero

C. Quotient at the sender

D. Remainder at the sender

8. If a company decides to implement VPN service within the organization and for its customers, You desire to secure a connection. Which protocol should you use

A. HTTPS

B. IPsec

C. SSL

D. IGMP

9. Which of the following protocols is used to monitor network devices such as hubs, switches, and routers?

A. SMTP

B. SNMP

C. RIP

D. OSPF

10. Which one of the following can't be considered a link layer service?

- A. Flow control
- B. Error detection
- C. Error Correction
- D. Segmentation

11. A piece of network equipment including its software resides on a managed network.

- A. Managed Entity
- B. Managed Device
- C. Agent
- D. None

12. Virtual circuit signaling protocol is not used in one of the following?

- A. ATM
- B. Internet
- C. Frame relay
- D. X.25

13. Company XYZ uses a network address of 192.168.4.0. It uses the mask of 255.255.255.224 to create subnets. What is the maximum number of usable hosts in each subnet?

- A. 6 B. 30 C. 14 D. 62

14. Which of the following is an example of a private IP address, which is not to be used on the Internet?

- A. 10.43.20.45 B. 132.101.42.5 C. 131.10.143.105
D. 195.10.50.105

15. _____ refers to the techniques, which allow more than one message to be transferred via the same communication channel.

- A. Switching
- B. multiplexing
- C. Ethernet
- D. Framing

16. A firewall is:

- A. An established network performance reference point.
- B. Software or hardware used to isolate a private network from a public network.
- C. A virus that infects macros.
- D. A predefined encryption key is used to encrypt and decrypt data transmissions.

17. Which of the following layer establishes, maintains, and synchronizes the interactions between communicating devices?

- A. Application
- B. Transport
- C. Data-link
- D. Session

18. A number of bits sent in one second.

- A. Bit Rate
- B. Bit Length
- C. Attenuation
- D. Distortion

19. A router normally connects LANs and WANs on the Internet and has a _____ table that is used for making decisions about the route.

- A. Address Translation
- B. Routing
- C. Switching
- D. None

20. _____ is responsible for IP addresses assigned to organizations that manage IP assignments for geographic regions such as Europe, Asia, and Latin America.

- A. IEEE
- B. IANA
- C. ISO
- D. IETF

21. Network activity that allows to creation of multiple logical networks from a single address block.

- A. IP addressing
- B. Subnetting
- C. VLSM
- D. multiplexing

22. The number of point-to-point links required in a fully connected network for 50 entities is

A. 1250

B. 1225

C. 2500

D. 50

23. In computer networks, the port number is used to identify _____.

A. Process

B. Computer

C. Network

D. All

24. Which task is the function of the presentation layer?

A. Addressing

B. Compression

C. Dialog Control

D. Authentication

25. _____ is the message created at the Internet Layer.

A. Frame

B. Packet

C. Segment

D. Datagram

26. Which of the following is not an application layer protocol?

A. DHCP

B. DNS

C. TCP

D. HTTP

27. Among the following IPv4 address, which IP can be assigned for a host?

A. 10.255.255.255

B. 33.55.99.12

C. 200.124.1.0

D. 0.0.0.0

28. In order for subnetting to work, the router must be told which portion of the host ID to use for the subnet's network ID, and this address is _____.

- A. IP address
- B. MAC address
- C. Subnet mask
- D. port number

29. Which of the following is equivalent to /20 notation?

- A. 255.224.0.0
- B. 255.0.0.0
- C. 255.255.255.192
- D. 255.255.240.0

30. Which of the following is not an example of a private IP address?

- A. 10.172.168.1
- B. 192.167.5.2
- C. 10.0.1.254
- D. 172.20.4.4

31. Which IPv4 address can be pinged to test the internal TCP/IP operation of a host.

- A. 0.0.0.0
- B. 192.168.1.1
- C. 127.0.0.1
- D. 255.255.255.255

32. A user opens three browsers on the same PC to access www.bdu.edu.et to search for certification course information. As the server replies, which information is used by the TCP/IP protocol stack in the PC to identify the destination web browser?

- A. Destination IP address
- B. Destination Port number
- C. Source Port number
- D. Source IP address

33. Which of the following layer establishes, maintains, and synchronizes the interactions between communicating devices?

- A. Application
- B. Transport
- C. Data-link
- D. Session

34. Which address on a PC does not change, even if the PC is moved to a different place or network?

- A. MAC Address
- B. IP Address
- C. Default Gateway
- D. Logical Address

35. Which device is operating only in the physical Layer?

- A. Switch
- B. Router
- C. Hub
- D. Firewall

36. The transport layer works _____ for the entire message delivery.

- A. Host-to-Host
- B. Device-to-Device
- C. Process-to-Process
- D. All

37. A type of topology in which one computer can have several alternative communication paths with all other computers on the network.

- A. Star
- B. Bus
- C. Mesh
- D. None

38. Which one of the following characteristics of network architecture refers to the capability of expanding to support new users without any performance impact?

- A. Security
- B. Quality of Service
- C. Scalability
- D. Fault tolerance

39. Additional to the data signal, the start and stop bit will be added in _____ data transmission.

- A. Synchronous
- B. Asynchronous
- C. Both A&B
- D. None

40. An important component of bus topology that protects the signal bounce problem?

- A. Backbone Cable B. Terminator C. Server D. None

41. A basic element of a network platform which can transport messages from one device to another is called_____.

- A. Rule
B. Message
C. Medium
D. Node

42. Which of the following is an example of a Metropolitan Area Network?

- A. Bluetooth B. Ethernet C. DSL D. Internet

43. Gesture communication is an example of _____ communication.

- A. Verbal
B. Non-Verbal
C. Written
D. Visualizations

44. Which one of the following is NOT true about bus topology?

- A. inexpensive
B. easy to design
C. easy to troubleshoot
D. termination needed

45. In _____ data transmission, both the communicating devices can send data signal in both direction.

- A. Full-duplex
- B. Half-duplex
- C. Both A&B
- D. None

46. An important component of bus topology which protect the signal bounce problem?

- A. Backbone Cable
- B. Terminator
- C. Server
- D. None

47. A basic element of network platform which provide the functionality that directs and moves the messages through the network called _____.

- A. Rule
- B. Service
- C. Medium
- D. Process

48. Which of the following is an example of Metropolitan Area Network?

- A. Bluetooth
- B. Ethernet
- C. DSL
- D. Internet

49. Which of the following is the media standard for most LAN installations?

- A. Fiber
- B. UTP
- C. Coaxial
- D. All

50. What does fiber optic cable use to transmit data?

- A. Electrical impulses
- B. Sound
- C. Light
- D. None

51. One of the following connectors is similar to the fiber optic ST connector.

- A. RJ45
- B. BNC
- C. RJ11
- D. None

52. Which of the following network term refers to private network infrastructure?

- A. intranet B. internet C. internetwork D. www

53. A type of topology in which one computer can have several alternative communication path with all other computers on the network.

- A. Star
B. Bus
C. Mesh
D. Hybrid
E. None

54. The situation when both transmitter devices and receiver devices have to work in a timely manner is referred to as:

- A. Synchronous
B. Asynchronous
C. Serial
D. Parallel

55. A large number of computers in a wide geographical area can be efficiently connected by using:

- A. Coaxial cables

- B. Communication satellites
- C. Twisted pair cable
- D. All

56. Which one of the following is not the advantage of a computer network?

- A. Avoid software compatibility problem
- B. Reduce hardware and software costs
- C. Data security problems
- D. All

57. Which one of the following is the most powerful transmission media than the others?

- A. UTP
- B. Coaxial
- C. STP
- D. Fiber optics

58. Which of the following characteristics of a network refers to expanding to support new users without any performance impact?

- A. Security
- B. Quality of Service
- C. Scalability

D. Fault tolerance

59. Which protocol is used to exchange mail over the Internet?

- A. SMTP B. HTTP C. FTP D. Telnet

60. Computer to Computer communication is:

- A. Duplex
B. Half Duplex
C. Simplex
D. All except B

61. An essential component of bus topology that protects the signal bounce problem?

- A. Backbone
B. Terminator
C. Cable
D. Server
E. None of the above

62. For constructing a network infrastructure in small office, what kind of network cable do we need to use?

- A. Twisted pair cable B. fiber cable C. coaxial D. All

63. A type of topology in which one computer can have several alternative communication paths with all other computers on the network.

- A. Star
- B. Bus
- C. Mesh
- D. None

64. Which of the following characteristics of network architecture refers to expanding to support new users without any performance impact?

- A. Security
- B. Quality of Service
- C. Scalability
- D. Fault tolerance

65. Additional to the data signal, the start and stop bit will be added in _____ data transmission.

- A. Synchronous
- B. Asynchronous
- C. Both A&B
- D. None

66. Which of the following is an example of Metropolitan Area Network?

A. Bluetooth B. Ethernet C. DSL D. Internet

67. One of the following uses Asynchronous mode of transmission?

A. Ethernet B. Token ring C. SONET D. Telephone line

68. The situation when both transmitter devices and receiver devices have to work in timely manner is referred to as:

- A. Synchronous
- B. Asynchronous
- C. Serial
- D. Parallel

69. Which one of the following characteristics of a network refers the capability of expanding to support new users without any performance impact?

- A. Security
- B. Quality of Service
- C. Scalability
- D. Fault tolerance

70. Which protocol is used to exchange mail over the Internet?

A. SMTP B. HTTP C. FTP D. Telnet

71. Computer to Computer communication is:

- A. Duplex B. Half Duplex C. Simplex D. None

72. An important component of bus topology which protects the signal bounce problem?

- A. Backbone
B. Terminator
C. Cable
D. Server

73. The most common Unshielded Twisted-Pair connector is _____.

- A. RJ11 B. RJ45 C. RG45 D. RG11

74. Encryption is handled by the _____ layer.

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

75. Sharing time on a communications circuit among many devices is known as

- A. Time-division multiplexing
B. Frequency-division multiplexing
C. Amplitude modulation
D. Phase modulation

76. The _____ is a circuit-switched network, while the _____ is a packet-switched network.

- A. Telephone, ATM
B. Satellite, Telephone
C. Telegraph and internet

D. internet and ATM

77. Which one of the following belongs to Network layer protocols?

- A. IP B. TCP C. DNS D.
HTTP

78. Most networks employ devices for routing services. Routers work at which of the following OSI layers?

- A. Transport B. Network C. Presentation
D. Session

79. Which of the following is equivalent to /26 notation?

- A. 255.224.0.0 B. 255.0.0.0 C. 255.255.255.192
D. 255.255.240.0

80. _____ refers to the techniques, which allow more than one message to be transferred via the same communication channel.

- A. Switching B. multiplexing C. Ethernet
D. Framing

81. Which of the following layer establishes, maintains, and synchronizes the interactions between communicating devices?

- A. Application B. Transport C. Data-link
D. Session

82. _____ is responsible for IP address assigned to organizations that manage IP assignments for geographic regions such as Europe, Asia, and Latin America.

- A. IEEE B. IANA C. ISO D. IETF

83. MAC address helps in

- A. Multimedia Access Control.
B. Media Access Control.
C. Mobile Access Control.
D. Master Access point Control

84. Which one of the following layer is not included within the TCP/IP architecture directly?

- A.Application
- B.Presentation
- C.Transport
- D.Network Access E. Physical

85. Decryption and encryption of data are the responsibility of the _____ Layer.

- A.Data Link
- B.Presentation
- C.Network
- D.Transport

86. One of the following cannot be found on the header lines of HTTP request message.

- A.Host
- B.User-Agent
- C.Content-length
- D.Connection

87. One of the following protocol is different from the other protocols

- A.Telnet B. FTP C. TCP D. HTTP E. SMTP

88. Which port number is used by DNS protocol?

- A.21
- B.53
- C.25
- D.80

89. Which one of the following uses UDP as the underlying transport layer protocol?

- A.File transfer
- B.E-mail
- C.Remote terminal access
- D.Internet telephony

90. The whole communication between client and server to transmit a file may take_____ . .

- A.2RTT
- B.RTT + transmit time
- C.2RTT + transmit time
- D.RTT

91. Which one of the following uses UDP as the underlying transport layer protocol?

- A.File transfer
- B.E-mail
- C.Remote terminal access
- D.Internet telephony

92. The status code in HTTP response message, which indicate request succeeded.

- A.331
- B.400
- C.200
- D.404

93. Which one of the following is not true about having centralized DNS?

- A.High Traffic volume
- B. Maintenance
- C.Single point of failure
- D.Load Distribution

94. The status code in HTTP response message, which indicate bad request.

- A.331
- B.400
- C.200
- D.404

95. Which one of the following interconnecting device, which acts as an interface that enables communication between dissimilar network?

- A. Gateway
- B. Bridge
- C.Switch
- D.Router

96. Which one of the following layers is not available on end-hosts (computers)?

- a. Application
- b. Transport

- c. Network
- d. Physical
- e. None

97. Host-to-host is at Network layer, process-to-process is at:

- a. Application layer
- b. Transport layer
- c. Media access layer
- d. Physical layer
- e. None

98. Which one of the following is a service provided by the transport layer?

- a. Process addressing
- b. Host addressing
- c. Physical addressing
- d. Network addressing
- e. None

99. UDP is connectionless meaning:

- a. It works only on wireless networks
- b. It works even if there is no medium of communication
- c. It doesn't need sender and receiver addressing
- d. The two ends are not required to agree for the data exchange
- e. None

100. What is the size of UDP header?

- a. 4 bytes

- b. 8 bytes
- c. 20 bytes
- d. 48 bytes
- e. None

101. TCP does not support broadcast and multicast because:

- a. It is a point-to-point protocol
- b. Broadcasting doesn't require reliability
- c. Because network layer enforces this rule
- d. The designers of TCP forgot to include TCP
- e. None

102. What is the port number of SMTP protocol?

- a. 21
- b. 25
- c. 55
- d. 143
- e. None

103. We know the size of a TCP header is 20 bytes. Why do we need to include header length on every segment?

- a. Header length might be changed during fragmentation
- b. Header length depends on the bandwidth
- c. Header lengths depends on the size of data field
- d. Header lengths depends on optional fields
- e. None

104. Which one of the following is not network layer service?

- a. Path determination
- b. Forwarding
- c. Call setup for virtual circuit networks
- d. TCP connection establishment
- e. None

105. How many different host addresses (including broadcast address) are there in the subnet 10.132.10.0/28?

- a. 4
- b. 16
- c. 28
- d. 255
- e. None

106. What is the motivation for implementing NAT?

- a. IP address scarcity
- b. Security
- c. Network failure recovery
- d. Routing algorithm
- e. None

107. How many bits are used for IPv6 address?

- a. 16 bits
- b. 32 bits
- c. 48 bits
- d. 128 bits
- e. None

108. Which one of the following does not have impact on congestion?

- a. Routing algorithm
- b. Packet life time
- c. Packet queuing and servicing policy
- d. Packet processing order
- e. None

109. From the four QoS parameters, email is highly sensitive to:

- a. Reliability
- b. Delay
- c. Jitter
- d. Bandwidth
- e. None

110. ICMP protocol is applicable at :

- a. Physical layer
- b. Data link layer
- c. Network layer
- d. Transport layer
- e. None

111. Which one of the following is not a service provided by link layer of the TCP/IP protocol stack?

- a. Framing and link access
- b. Reliable delivery from end-host to end-host
- c. Flow control between directly connected nodes
- d. Error detection and correction between directly connected nodes

e. None

112. What do you call the PDU at the link layer of the TCP/IP protocol stack?

a. Datagram

b. Segment

c. Message

d. Frame

e. None

113. Which one of the following is not a multiple access protocol of shared media?

a. Channel partitioning

b. Point-to-point protocol

c. Random access protocol

d. Taking turns

e. None

114. Time Division Multiple access is:

a. Channel partitioning protocol

b. Point-to-point protocol

c. Random access protocol

d. Taking turns

e. None

115. What is ARP?

a. Address Routing Protocol

b. Access Resource Protocol

c. Active Routing Protocol

- d. Address Resolution Protocol
- e. None

116. What type of medium is commonly used by Gigabit Ethernet?

- a. UTP cable
- b. Coaxial cable
- c. Fiber optic
- d. Bluetooth
- e. None

117. Layer-2 devices are plug-and-play and no configuration is required because:

- a. They are difficult to configure
- b. They are all-knowing devices
- c. Manufacturing companies don't distribute the password
- d. Most of them are wireless
- e. None

118. What is an Ad-hoc wireless network?

- A. A wireless communication with central server for authentication
- B. A wireless technology with Gigabit backbone to datacenter
- C. A wireless technology with peer-to-peer setup without center device
- D. A wireless communication between a client and a stationary access point.
- E. None

119. Which topology requires a dedicated point-to-point connection between only the two neighboring devices.

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

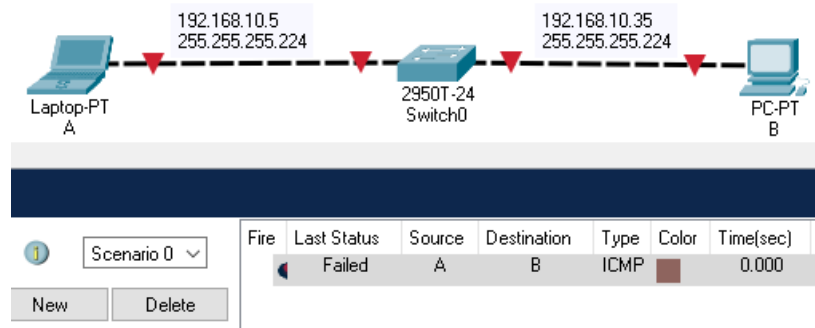
120. If one computer becomes a _____ at one time and remains a server at another time, such a network application architecture is called _____.
A. Ring topology
B. Bus topology
C. Client/server
D. Peer-to-peer
121. Transmission impairment that refers to loss of strength of a signal is _____.
A. Attenuation
B. Distortion
C. Noise
D. None
122. _____ defines how a particular pattern is to be interpreted, and what action is to be taken based on that interpretation.
A. Syntax
B. Semantics
C. Accuracy
D. Reliability
123. Which service of a data-link layer imposes a mechanism to avoid overwhelming the receiver by sending too much data which can't be absorbed by the receiver?
A. Flow control
B. Error control
C. Access control
D. Framing
124. Which of the following networks uses very expensive network equipment/infrastructure and can be managed by multiple administrations.
A. MAN
B. LAN
C. WAN
D. None
125. In a synchronous transmission, the transmitter and receiver pace are _____.
A. Zero
B. Fixed
C. Variable
D. A function of the data rate
126. What is the signal encoding for Fiber optics cable?
A. Electrical impulses
B. Electromagnetic waves
C. Pulses of light
D. Radio waves
127. Communication between a computer and a keyboard is an example of _____ transmission.
A. Half-duplex
B. Full-duplex
C. Simplex
D. Automatic
128. Circuit switching takes place at the _____ layer.
A. Data link
B. Physical
C. Network
D. Transport
129. In _____, the resources need to be reserved during setup phase; the resources remain dedicated for the entire duration of data transfer phase until the teardown phase.
A. Packet switching
B. Circuit switching
C. Datagram switching
D. None of the above
130. The process of transmitting two or more different signals simultaneously on the same medium is called _____.
A. Switching
B. Layering
C. Segmentation
D. None
131. In _____, resources are allocated on demand.

- A. Datagram switching
 B. Circuit switching
 C. Message switching
 D. None of the above
132. Every NIC has a unique serial number called a ____.
- A. WAN
 B. MAC address
 C. IP address
 D. Default gateway
133. A network where there is no resource reservation is called ____.
- A. Circuit-Switched Networks
 B. message-switched networks
 C. Packet-switched networks
 D. Satellite network
134. In IEEE 802.11 frames, the value of 11 and its distribution system is ____.
- A. Local Area Network
 B. Wireless Area Network
 C. Metropolitan Network
 D. None of the given
135. The ____ standard describes the upper part of the data link layer.
- A. IEEE 802.2
 B. IEEE 802.3
 C. IEEE 802.11
 D. IEEE 802.5
136. ____ protocol is widely used on LAN in the MAC sub layer.
- A. CSMA/CA
 B. TCP
 C. CSMA/CD
 D. GSM
137. ____ are wireless network standard with a data rate of only 11 Mbps.
- A. IEEE 802.11a
 B. IEEE803.11g
 C. IEEE803.11a
 D. IEEE802.11b
138. Wireless transmission can be done via ____.
- A. Radio waves
 B. Microwaves
 C. Infrared
 D. All of the mentioned
139. The wireless LAN specification is defined by IEEE, called, ____ which covers the data link and physical layer
- A. IEEE 802.2
 B. IEEE 802.11
 C. IEEE 802.3
 D. IEEE 802.5
140. ____ is the most widely used local area network protocol.
- A. Token Ring
 B. Token Bus
 C. Ethernet
 D. none of the above
141. What command would you use on a windows system to find your IP address at the command line?
- A. ifconfig
 B. ipconfig
 C. intconfig
 D. Addconfig
142. ____ is the process of separating network functions in communication environment.
- A. Segmentation
 B. Encapsulation
 C. Layering Task
 D. Internetworking
143. In ____, the resources need to be reserved during setup phase; the resources remain dedicated for the entire duration of data transfer phase until the teardown phase.
- A. Packet switching
 B. Circuit switching
 C. Datagram switching
 D. None of the above

144. Which processes does TCP, but not UDP, use?

- A. a. Windowing
- B. b. Acknowledgements
- C. c. Both a and b
- D. d. Destination Port

145. A network administrator is connecting hosts A and B directly through their Ethernet interfaces, as shown in the illustration. Ping attempts between the hosts are failed. What could be the reason for the disconnectivity between these nodes?



- A. The two IP addresses are located in different subnets
- B. The connection path (physical path) is inappropriate
- C. Due to the class of the network
- D. There is no problem in the given network

146. For which of the following would you not need to provide a crossover cable?

- A. Connecting uplinks between Switches
- B. Connecting Computers to Routers
- C. Connecting Routers to Switches
- D. Connecting Hubs to Switches

147. Which of the following wireless media used for Remote controls for TVs and Indoor wireless LANs.

- A. Microwaves
- B. Radio waves
- C. Infrared waves
- D. Wi-fi

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

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

149. What is the signal encoding for each Fiber optics cable?

- A. Electrical impulses
- B. Pulses of light
- C. Radio waves
- D. . Electromagnetic waves

150. Transmission impairment that refers to changes of format/shape of a signal is _____.

- A. Attenuation
- B. Distortion
- C. Noise
- D. None

151. The range of addresses that can be used in the first octet of Class D addresses are ____.
- A. 192-223
 - B. 240-255
 - C. 224-239
 - D. 8128-191
152. What is the prefix length notation for the subnet mask 255.255.255.248?
- A. /30
 - B. /27
 - C. /28
 - D. /29
153. To which class this IP address 241.0.200.141 belongs?
- A. Class B
 - B. Class A
 - C. Class E
 - D. Class D
154. _____ is a networking technique that enables us to transfer two or more different data signals simultaneously on the same communication channel.
- A. Switching
 - B. Layering Task
 - C. Multiplexing
 - D. None
155. Which one of the following is true regarding multiplexing techniques?
- A. In TDM all the signals operate at the same time with different frequencies
 - B. In FDM all the signals operate with same frequency at different times
 - C. Multiplexing is sharing of a medium and its link by several devices
 - D. All
156. Which one of the following is different from the other?
- A. 172.16.35.12
 - B. 188.17.12.14
 - C. 130.17.12.24
 - D. 126.17.12.254
157. _____ refers to the way a network is laid out, either physically or logically
- A. Line configuration
 - B. Topology
 - C. Transmission mode
 - D. Modulation mode
158. Which of the following is a basic network topology?

- A. A Star
- B. Mesh
- C. Ring
- D. all of the above

159. Which of the following is a basic network topology?

- E. A. Tree
- F. B. point-to-point
- G. C. multipoint
- H. D. all of the above

160. Which of the following is a basic network topology?

- A half-duplex
- B. multipoint
- C. ring
- D. all of the above

161. In a _____ relationship, the link is shared equally between devices

- I. A. peer-to-peer
- J. B. point-to-point
- K. C. primary-secondary
- L. D. master-slave

162. In a _____ relationship, one device controls traffic and the others must transmit through it

- M. A. peer-to-peer
- N. B. point-to-point
- O. C. primary-secondary
- P. D. full duplex

163. An Unauthorized access is network ____ issue
- a. Performance
 - b. Reliability
 - c. Security
 - d. Accountability
164. The rules that govern data communication is called ____.
- a. Syntax
 - b. Protocol
 - c. Standards
 - d. Semantics
165. Topology that is multi-point is ____.
- a. Star
 - b. Mesh
 - c. Ring
 - d. Bus
166. As the frequency increases the period
- a. Increases
 - b. Remains unchanged
 - c. Decreases
 - d. Changes inconsistently
167. Error Control is a function of

- a. Physical Layer
- b. Network Layer
- c. Datalink Layer
- d. None of the above

168. HDLC is

- a. High Density Layer Control
- b. High Definition Layer Control
- c. High-level Data Link Control
- d. None of the above

169. Checksum is used to

- a. Detect errors in the data
- b. Recover the data from errors
- c. Both a and b.
- d. None of the above

170. Go-Back-N Protocol ensures

- a. Retransmission of all frames
- b. Retransmission of only corrupted frames
- c. Retransmission of corrupted frames and subsequent frames.
- d. All the above

171. A Local Area Network(LAN) is confined to

- a. Large area
- b. Small area

- c. Both a and b.
- d. None of the above

172. **Baseband LAN** is a

- a. Single channel, analog LAN
- b. Multichannel, analog LAN
- c. Single channel, digital LAN
- d. Multichannel, digital LAN

173. **IEEE 802.2** standard works on

- a. Connectionless mode
- b. Connection-oriented mode
- c. Both a and b .
- d. None of the above.

174. **Size of source address field** in an Ethernet frame is

- a. 2 bytes
- b. 6 bytes
- c. 4 bytes
- d. 3 bytes

175. In **which** type of switching all packets of a message follow same channel

- a. Datagram packet switching
- b. Virtual circuit switching
- c. Message switching

d. None of the above.

176. _____ is a device that connects n inputs to m outputs.

a. Modem

b. Cross point

c. Cross bar

d. RAM

177. How many OSI layers are covered in X.25 standard?

a. Two

b. Three

c. Six

d. Seven

178. _____ is a unique identifier which indicates a particular Virtual Circuit on a network.

a. Virtual Channel number

b. Virtual Path identifier

c. Virtual Channel identifier

d. None of the above

179. An IP address consists of _____ bits.

a. 4

b. 8

c. 32

d. Any of the above

180. Identify the class of IP address 191.1.2.3
- a. Class A
 - b. Class B
 - c. Class C
 - d. Class D
181. An ARP reply is *to* __
- a. Unicast; one host
 - b. Unicast; all hosts
 - c. Multicast; One host
 - d. Broadcast; all host
182. Which of the following function does UDP perform?
- a. Process to process communication
 - b. Host to host communication
 - c. End to end reliable data delivery
 - d. All the above
183. Out-of-band data is called
- A. The urgent data
 - B. The lost dataP
 - C. Internet data
 - D. None of the above
184. The maximum size of an IP datagram is
- A. 65,537
 - B. 65,536
 - C. 65,538
 - D. None of the above

185. **How many layers in XNS?**
1. 5
 2. 6
 3. 4
 4. None of the above
186. **What are the nodes of SNA?**
- A. End-user
 - B. Logical Unit
 - C. Physical Unit and Datalink
 - D. all of the above
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 - C. Physical Unit and Datalink
 - D. all of the above
190. **SNA network is classified into two types. They are.....**
- A. Subarea Network and APPN(Advanced Peer-to-Peer Networking (APPN))
 - B. Only Sub area Network
 - C. Advanced Peer-to-Peer Networking (APPN)
 - D. None of the above
191. **GDS stands for**
- A. Generalized Data Stream
 - B. Generalized Date Stream
 - C. General Data Stream

D. None of the above

192. **The Unix system deals with two important API**

A. BSD –Berkeley Software Distribution and Transport Layer Interface (TLI)

B. only BSD –Berkeley Software Distribution

C. only Transport Layer Interface

D. None of the above

193. **The connection-oriented and connectionless services are provided by which protocol?**

A. Linux protocol

B. unix domain protocols

C. both a) and b)

D. None of the above

194. **Which method is often called a “reliable” network service?**

A. Connection-oriented

B. object-oriented

C. both a) and b)

D. None of the above

195. **The client in socket programming must know information**

a. The IP address of Server

b. Port number

c. Both IP address of Server & Port number

d. Only its own IP address

196. **What is the size of MAC Address?**

a. 16-bits

b. 32-bits

C. 48-bits

d. 64-bits

197. **Which of the following term describes PDU encapsulated at Transport Layer?**

a. Frame

b. Packet

c. Data

d. Segment

198. A list of protocols used by a system, one protocol per layer, is called ____

- a) protocol architecture
- b) protocol stack
- c) protocol suite
- d) protocol system

199. Connector RJ-45 contains?

- a. Two pins
- b. Four pins
- 5 University Academy
- c. Eight pins
- d. Ten pins

200. A set of rules that governs data communication is called

- a. Protocols
- b. Standards
- c. RFCs
- d. Servers