Computer Networks

Multiple Choice Questions and Answers :-

1. When collection of various computers seems a single coherent system to its client, then it is called

a) computer network

b) distributed system

c) both (a) and (b)

d) none of the mentioned

Answer:b

2. Two devices are in network if

a) a process in one device is able to exchange information with a process in another device

b) a process is running on both devices

c) PIDs of the processes running of different devices are same

d) none of the mentioned

Answer:a

3. Which one of the following computer network is built on the top of another network?

a) prior network

b) chief network

c) prime network

d) overlay network

Answer:d

4. In computer network nodes are

a) the computer that originates the data

b) the computer that routes the data

c) the computer that terminates the data

d) all of the mentioned

Answer:d

5. Communication channel is shared by all the machines on the network in

a) broadcast network

b) unicast network

c) multicast network

d) none of the mentioned

Answer:a

6. Bluetooth is an example of

a) personal area network

b) local area network

c) virtual private network

d) none of the mentioned

Answer:a

7. A _____ is a device that forwards packets between networks by processing the routing information included in the packet.

a) bridge

b) firewall

c) router

d) all of the mentioned

Answer:c

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

a) protocol architecture

b) protocol stack

c) protocol suit

d) none of the mentioned

Answer:b

9. Network congestion occurs

a) in case of traffic overloading

b) when a system terminates

c) when connection between two nodes terminates

d) none of the mentioned

Answer:a

10. Which one of the following extends a private network across public networks?

a) local area network

b) virtual private network

c) enterprise private network

d) storage area network

Answer:b

11. OSI stands for

a) open system interconnection

b) operating system interface

c) optical service implementation

d) none of the mentioned

Answer:a

12. The OSI model has ___ layers.

a) 4

b) 5

c) 6

d) 7

Answer:d

13. TCP/IP model does not have _____ layer but OSI model have this layer.

a) session layer

b) presentation layer

c) application layer

d) both (a) and (b)

Answer:d

14. Which layer links the network support layers and user support layers

a) session layer

b) data link layer

c) transport layer

d) network layer

Answer:c

Explanation:Physical, data link and network layers are network support layers and session, presentation and application layers are user support layers.

15. Which address is used in an internet employing the TCP/IP protocols?

a) physical address and logical address

b) port address

c) specific address

d) all of the mentioned

Answer:d

16. TCP/IP model was developed _____ the OSI model.

a) prior to

b) after

c) simultaneous to

d) none of the mentioned

Answer:a

17. Which layer is responsible for process to process delivery?

a) network layer

b) transport layer

c) session layer

d) data link layer

Answer:b

18. Which address identifies a process on a host?

a) physical address

b) logical address

c) port address

d) specific address

Answer:c

19. Which layer provides the services to user?

a) application layer

b) session layer

c) presentation layer

d) none of the mentioned

Answer:a

20. Transmission data rate is decided by

a) network layer

b) physical layer

c) data link layer

d) transport layer

Answer:b

21. The physical layer concerns with

a) bit-by-bit delivery

p) process to process delivery

c) application to application delivery

d) none of the mentioned

Answer:a

22. Which transmission media has the highest transmission speed in a network?

a) coaxial cable

b) twisted pair cable

c) optical fiber

d) electrical cable

Answer:c

23. Bits can be send over guided and unguided media as analog signal by

a) digital modulation

b) amplitude modulation

c) frequency modulation

d) phase modulation

Answer:a

24. The portion of physical layer that interfaces with the media access control sublayer is called

a) physical signalling sublayer

b) physical data sublayer

c) physical address sublayer

d) none of the mentioned

Answer:a

25. physical layer provides

a) mechanical specifications of electrical connectors and cables

b) electrical specification of transmission line signal level

c) specification for IR over optical fiber

d) all of the mentioned

Answer:d

26. In asynchronous serial communication the physical layer provides

a) start and stop signalling

b) flow control

c) both (a) and (b)

d) none of the mentioned

Answer:c

27. The physical layer is responsible for

a) line coding

b) channel coding

c) modulation

d) all of the mentioned

Answer:d

28. The physical layer translates logical communication requests from the _____ into hardware specific operations.

a) data link layer

b) network layer

c) trasnport layer

d) application layer

Answer:a

29. A single channel is shared by multiple signals by

a) analog modulation

b) digital modulation

c) multiplexing

d) none of the mentioned

Answer:c

30. Wireless transmission can be done via

a) radio waves

b) microwaves

c) infrared

d) all of the mentioned

Answer:d

31. The data link layer takes the packets from _____ and encapsulates them into frames for transmission.

a) network layer

b) physical layer

c) transport layer

d) application layer

Answer:a

32. Which one of the following task is not done by data link layer?

a) framing

b) error control

c) flow control

d) channel coding

Answer:d

33. Which sublayer of the data link layer performs data link functions that depend upon the type of medium?

a) logical link control sublayer

b) media access control sublayer

c) network interface control sublayer

d) none of the mentioned

Answer:b

34. Header of a frame generally contains

a) synchronization bytes

b) addresses

c) frame identifier

d) all of the mentioned

Answer:d

35. Automatic repeat request error management mechanism is provided by

a) logical link control sublayer

b) media access control sublayer

c) network interface control sublayer

d) none of the mentioned

Answer:a

36. When 2 or more bits in a data unit has been changed during the transmission, the error is called

a) random error

b) burst error

c) inverted error

d) none of the mentioned

Answer:b

37. CRC stands for

a) cyclic redundancy check

b) code repeat check

c) code redundancy check

d) cyclic repeat check

Answer:a

38. Which one of the following is a data link protocol?

a) ethernet

b) point to point protocol

c) HDLC

d) all of the mentioned

Answer:d

39. Which one of the following is the multiple access protocol for channel access control?

a) CSMA/CD

b) CSMA/CA

c) both (a) and (b)

d) none of the mentioned

Answer:c

40. The technique of temporarily delaying outgoing outgoing acknowledgements so that they can be hooked onto the next outgoing data frame is called

a) piggybacking

b) cyclic redundancy check

c) fletcher’s checksum

d) none of the mentioned

Answer:a

41. The network layer concerns with

a) bits

b) frames

c) packets

d) none of the mentioned

Answer:c

42. Which one of the following is not a function of network layer?

a) routing

b) inter-networking

c) congestion control

d) none of the mentioned

Answer:d

43. The 4 byte IP address consists of

a) network address

b) host address

c) both (a) and (b)

d) none of the mentioned

Answer:c

44. In virtual circuit network each packet contains

a) full source and destination address

b) a short VC number

c) both (a) and (b)

d) none of the mentioned

Answer:b

45. Which one of the following routing algorithm can be used for network layer design?

a) shortest path algorithm

b) distance vector routing

c) link state routing

d) all of the mentioned

Answer:d

46. Multidestination routing

a) is same as broadcast routing

b) contains the list of all destinations

c) data is not sent by packets

d) none of the mentioned

Answer:c

47. A subset of a network that includes all the routers but contains no loops is called

a) spanning tree

b) spider structure

c) spider tree

d) none of the mentioned

Answer:a

48. Which one of the following algorithm is not used for congestion control?

a) traffic aware routing

b) admission control

c) load shedding

d) none of the mentioned

Answer:d

49. The network layer protocol of internet is

a) ethernet

b) internet protocol

c) hypertext transfer protocol

d) none of the mentioned

Answer:b

50. ICMP is primarily used for

a) error and diagnostic functions

b) addressing

c) forwarding

d) none of the mentioned

Answer:a

51. Transport layer aggregates data from different applications into a single stream before passing it to

a) network layer

b) data link layer

c) application layer

d) physical layer

Answer:a

52. Which one of the following is a transport layer protocol used in internet?

a) TCP

b) UDP

c) both (a) and (b)

d) none of the mentioned

Answer:c

53. User datagram protocol is called connectionless because

a) all UDP packets are treated independently by transport layer

b) it sends data as a stream of related packets

c) both (a) and (b)

d) none of the mentioned

Answer:a

54. Transmission control protocol is

a) connection oriented protocol

b) uses a three way handshake to establish a connection

c) recievs data from application as a single stream

d) all of the mentioned

Answer:d

55. An endpoint of an inter-process communication flow across a computer network is called

a) socket

b) pipe

c) port

d) none of the mentioned

Answer:a

56. Socket-style API for windows is called

a) wsock

b) winsock

c) wins

d) none of the mentioned

Answer:b

57. Which one of the following is a version of UDP with congestion control?

a) datagram congestion control protocol

b) stream control transmission protocol

c) structured stream transport

d) none of the mentioned

Answer:a

58. A _____ is a TCP name for a transport service access point.

a) port

b) pipe

c) node

d) none of the mentioned

Answer:a

59. Transport layer protocols deals with

a) application to application communication

b) process to process communication

c) node to node communication

d) none of the mentioned

Answer:b

60. The ____ translates internet domain and host names to IP address.

a) domain name system

b) routing information protocol

c) network time protocol

d) internet relay chat

Answer:a

61. Teredo is an automatic tunneling technique. In each client the obfuscated IPv4 address is represented by bits

a) 96 to 127

b) 0 to 63

c) 80 to 95

d) 64 to 79

Answer: a

Explanation: Bits 96 to 127 in the datagram represents obfuscated 1Pv4 address.

62. Which one of the following allows a user at one site to establish a connection to another site and then pass keystrokes from local host to remote host?

a) HTTP

b) FTP

c) telnet

d) none of the mentioned

Answer:c

63. Application layer protocol defines

a) types of messages exchanged

b) message format, syntax and semantics

c) rules for when and how processes send and respond to messages

d) all of the mentioned

Answer:d

64. Which one of the following protocol delivers/stores mail to reciever server?

a) simple mail transfer protocol

b) post office protocol

c) internet mail access protocol

d) hypertext transfer protocol

Answer:a

65. The ASCII encoding of binary data is called

a) base 64 encoding

b) base 32 encoding

c) base 16 encoding

d) base 8 encoding

Answer:a

66. Which one of the following is an internet standard protocol for managing devices on IP network?

a) dynamic host configuration protocol

b) simple newtwork management protocol

c) internet message access protocol

d) media gateway protocol

Answer:b

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

a) media gateway protocol

b) dynamic host configuration protocol

c) resource reservation protocol

d) session initiation protocol

Answer:c

68. Which protocol is a signalling communication protocol used for controlling multimedia communication sessions?

a) session initiation protocol

b) session modelling protocol

c) session maintenance protocol

d) none of the mentioned

Answer:a

69. Which one of the following is not correct?

a) application layer protocols are used by both source and destination devices during a communication session

b) application layer protocols implemented on the source and destination host must match

c) both (a) and (b)

d) none of the mentioned

Answer:c

70. When displaying a web page, the application layer uses the

a) HTTP protocol

b) FTP protocol

c) SMTP protocol

d) none of the mentioned

Answer:a

71. The entire hostname has a maximum of

a) 255 characters

b) 127 characters

c) 63 characters

d) 31 characters

Answer:a

72. A DNS client is called

a) DNS updater

b) DNS resolver

c) DNS handler

d) none of the mentioned

Answer:b

73. Servers handle requests for other domains

a) directly

b) by contacting remote DNS server

c) it is not possible

d) none of the mentioned

Answer:b

74. DNS database contains

a) name server records

b) hostname-to-address records

c) hostname aliases

d) all of the mentioned

Answer:d

75. If a server has no clue about where to find the address for a hostname then

a) server asks to the root server

b) server asks to its adjcent server

c) request is not processed

d) none of the mentioned

Answer:a

76. Which one of the following allows client to update their DNS entry as their IP address change?

a) dynamic DNS

b) mail transfer agent

c) authoritative name server

d) none of the mentioned

Answer:a

77. Wildcard domain names start with label

a) @

b) *

c) &

d) #

Answer:b

78. The right to use a domain name is delegated by domain name registers which are accredited by

a) internet architecture board

b) internet society

c) internet research task force

d) internet corporation for assigned names and numbers

Answer:d

79. The domain name system is maintained by

a) distributed database system

b) a single server

c) a single computer

d) none of the mentioned

Answer:a

80. Which one of the following is not true?

a) multiple hostnames may correspond to a single IP address

b) a single hostname may correspond to many IP addresses

c) a single hostname may correspond to a single IP address

d) none of the mentioned

Answer:c

81. Telnet protocol is used to establish a connection to

a) TCP port number 21

b) TCP port number 22

c) TCP port number 23

d) TCP port number 24

Answer:c

82. Which one of the following is not true?

a) telnet defines a network virtual terminal (NVT) standard

b) client programs interact with NVT

c) server translates NVT operations

d) none of the mentioned

Answer:d

83. All telnet operations are sent as

a) 4 bytes

b) 8 bytes

c) 16 bytes

d) 32 bytes

Answer:b

84. AbsoluteTelnet is a telnet client for

a) windows

b) linux

c) mac

d) none of the mentioned

Answer:a

85. The decimal code of interpret as command (IAC) character is

a) 252

b) 253

c) 254

d) 255

Answer:d

86. In character mode operation of telnet implementation

a) each character typed is sent by the client to the server

b) each character typed is discarded by the server

c) both (a) an (b)

d) none of the mentioned

Answer:a

87. In telnet, the client echoes the character on the screen but does not send it until a whole line is completed in

a) default mode

c) character mode

c) server mode

d) none of the mentioned

Answer:a

88. Which one of the following is not correct?

a) telnet is a general purpose client-server program

b) telnet lets user access an application on a remote computer

c) telnet can also be used for file transfer

d) none of the mentioned

Answer:c

89. Which operating mode of telnet is full duplex?

a) default mode

b) server mode

c) line mode

d) none of the mentioned

Answer:c

90. If we want that a character be interpreted by the client instead of server

a) escape character has to be used

b) control functions has to be disabled

c) it is not possible

d) none of the mentioned

Answer:a

91. A piece of icon or image on a web page associated with another webpage is called

a) url

b) hyperlink

c) plugin

d) none of the mentioned

Answer:b

92. Dynamic web page

a) is same every time whenever it displays

b) generates on demand by a program or a request from browser

c) both (a) and (b)

d) none of the mentioned

Answer:b

93. What is a web browser?

a) a program that can display a web page

b) a program used to view html documents

c) it enables user to access the resources of internet

d) all of the mentioned

Answer:d

94. Common gateway interface is used to

a) generate executable files from web content by web server

b) generate web pages

c) stream videos

d) none of the mentioned

Answer:a

95. URL stands for

a) unique reference label

b) uniform reference label

c) uniform resource locator

d) unique resource locator

Answer:c

96. A web cookie is a small piece of data

a) sent from a website and stored in user’s web browser while a user is browsing a website

b) sent from user and stored in the server while a user is browsing a website

c) sent from root server to all servers

d) none of the mentioned

Answer:a

97. Which one of the following is not used to generate dynamic web pages?

a) PHP

b) ASP.NET

c) JSP

d) none of the mentioned

Answer:d

98. An alternative of javascript on windows platform is

a) VBScript

b) ASP.NET

c) JSP

d) none of the mentioned

Answer:a

99. What is document object model (DOM)?

a) convention for representing and interacting with objects in html documents

b) application programming interface

c) hierarchy of objects in ASP.NET

d) none of the mentioned

Answer:a

100. AJAX stands for

a) asynchronous javascript and xml

b) advanced JSP and xml

c) asynchronous JSP and xml

d) advanced javascript and xml

Answer:a

101. Multiple object can be sent over a TCP connection between client and server in

a) persistent HTTP

b) nonpersistent HTTP

c) both (a) and (b)

d) none of the mentioned

Answer:a

102. HTTP is _____ protocol.

a) application layer

b) transport layer

c) network layer

d) none of the mentioned

Answer:a

103. In the network HTTP resources are located by

a) uniform resource identifier

b) unique resource locator

c) unique resource identifier

d) none of the mentioned

Answer:a

104. HTTP client requests by establishing a _____ connection to a particular port on the server.

a) user datagram protocol

b) transmission control protocol

c) broader gateway protocol

d) none of the mentioned

Answer:b

105. In HTTP pipelining

a) multiple HTTP requests are sent on a single TCP connection without waiting for the corresponding responses

b) multiple HTTP requests can not be sent on a single TCP connection

c) multiple HTTP requests are sent in a queue on a single TCP connection

d) none of the mentioned

Answer:a

106. FTP server listens for connection on port number

a) 20

b) 21

c) 22

d) 23

Answer:b

107. In FTP protocol, client contacts server using ____ as the transport protocol.

a) transmission control protocol

b) user datagram protocol

c) datagram congestion control protocol

d) stream control transmission protocol

Answer:a

108. In which mode FTP, the client initiates both the control and data connections.

a) active mode

b) passive mode

c) both (a) and (b)

d) none of the mentioned

Answer:b

109. The file transfer protocol is built on

a) data centric architecture

b) service oriented architecture

c) client server architecture

d) none of the mentioned

Answer:c

110. In file transfer protocol, data transfer can be done in

a) stream mode

b) block mode

c) compressed mode

d) all of the mentioned

Answer:d

111. Ethernet frame consists of

a) MAC address

b) IP address

c) both (a) and (b)

d) none of the mentioned

Answer:a

112. What is stat frame delimeter (SFD) in ethernet frame?

a) 10101010

b) 10101011

c) 00000000

d) 11111111

Answer:b

113. MAC address is of

1) 24 bits

b) 36 bits

c) 42 bits

d) 48 bits

Answer:d

114. What is autonegotiation?

a) a procedure by which two connected devices choose common transmission parameters

b) a security algorithm

c) a routing algorithm

d) none of the mentioned

Answer:a

115. Ethernet in metropolitan area network (MAN) can be used as

a) pure ethernet

b) ethernet over SDH

c) ethernet over MPLS

d) all of the mentioned

Answer:d

116. A point-to-point protocol over ethernet is a network protocol for

a) encapsulating PPP frames inside ethernet frames

b) encapsulating ehternet framse inside PPP frames

c) for security of ethernet frames

d) for security of PPP frames

Answer:a

117. High speed ethernet works on

a) coaxial cable

b) twisted pair cable

c) optical fiber

d) none of the mentioned

Answer:c

118. The maximum size of payload field in ethernet frame is

a) 1000 bytes

b) 1200 bytes

c) 1300 bytes

d) 1500 bytes

Answer:d

119. What is interframe gap?

a) idle time between frames

b) idle time between frame bits

c) idle time between packets

d) none of the mentioned

Answer:a

120. An ethernet frame that is less than the IEEE 802.3 minimum length of 64 octets is called

a) short frame

b) run frame

c) mini frame

d) man frame

Answer:b

121) Which of this is not a constituent of residential telephone line?

a) A high-speed downstream channel

b) A medium-speed downstream channel

c) A low-speed downstream channel

d) None of the mentioned

Answer: c

Explanation: The third part is ordinary two way telephone channel.

122) In DSL telco provides these services

a) Wired phone access

b) ISP

c) All of the mentioned

d) None of the mentioned

Answer: c

Explanation: The same company which provides phone connection is also its ISP in DSL.

123) The function of DSLAM is

a) Convert analog signals into digital signals

b) Convert digital signals into analog signals

c) Amplify digital signals

d) None of the mentioned

Answer: a

Explanation: The DSLAM located in telco's Central Office does this function.

124) The following term is not associted with DSL

a) DSLAM

b) CO

c) Splitter

d) CMTS

Answer: d

Explanation: Cable modem termination system is used in cable internet access.

125) HFC contains

a) Fibre cable

b) Coaxial cable

c) Both of the mentioned

d) None of the mentioned

Answer: c

126) Choose the statement which is not applicable for cable internet access

a) It is a shared broadcast medium

b) It includes HFCs

c) Cable modem connects home PC to Ethernet port

d) Analog signal is converted to digital signal in DSLAM

Answer: d

Explanation: In cable access analog signal is converted to digital signal by CMTS.

127) Among the optical-distribution architectures that is essentially switched ehternet is

a) AON

b) PON

c) NON

d) None of the mentioned

Answer:a

Explanation: Active optical networks are essentially switched ehternets.

128) StarBand provides

a) FTTH internet access

b) Cable access

c) Telephone access

d) Satellite access

Answer: d

Explanation: None.

129) Home Access is provided by

a) DSL

b) FTTP

c) Cable

d) All of the mentioned

Answer: d

130) ONT is connected to splitter using

a) High speed fibre cable

b) HFC

c) Optical cable

d) None of the mentioned

Answer: c

131) The sharing of a medium and its link by two or more devices is called _____

a) Fully duplexing

b) Multiplexing

c) Both a and b

d) None of the mentioned

Answer: b

132) Multiplexing is used in _____

a) Packet switching

b) Circuit switching

c) Data switching

d) None of the mentioned

Answer: b

133) Which multiplexing technique transmits digital signals ?

a) FDM

b) TDM

c) WDM

d) None of the mentioned

Answer: b

Explanation: FDM and WDM are used in analog signals.

134) If there are n signal sources of same data rate than TDM link has _____ slots

a) n

b) n/2

c) n*2

d) 2^n

Answer: a

Explanation: Each slot is dedicated to one of the source.

135) If link transmits 4000frames per second, and each slot has 8 bits,the transmission rate of circuit this TDM is

a) 32kbps

b) 500bps

c) 500kbps

d) None of the mentioned

Answer: a

Explanation: Transmission rate= frame rate * number os bits in a slot.

136) The state when dedicated signals are idle are called

a) Death period

b) Poison period

c) Silent period

d) None of the mentioned

Answer: c

137) Multiplexing can provide

a) Efficiency

b) Privacy

c) Anti jamming

d) Both a and b

Answer: d

138) In TDM, the transmission rate of the multiplexed path is usually _____ the sum of the transmission rates of the signal sources.

a) Greater than

b) Lesser than

c) Equal to

d) Equal to or greater than

Answer: a

139) In TDM, slots are further divided into

a) Seconds

b) Frames

c) Packets

d) None of the mentioned

Answer: b

140) Multiplexing technique that shifts each signal to a different carrier frequency

a) FDM

b) TDM

c) Either a or b

d) Both a and b

Answer: a

Explanation: FDM stands for Frequency division multiplexing.

141) Physical or logical arrangement of network is

a) Topology

b) Routing

c) Networking

d) None of the mentioned

Answer: a

142) In this topology there is a central controller or hub

a) Star

b) Mesh

c) Ring

d) Bus

Answer: a

143) This topology requires multipoint connection

a) Star

b) Mesh

c) Ring

d) Bus

Answer: d

144) Data communication system spanning states, countries, or the whole world is

a) LAN

b) WAN

c) MAN

d) None of the mentioned

Answer: b

Explanation:Wide area network(WAN) covers the whole of the world network.

145) Data communication system within a building or campus is

a) LAN

b) WAN

c) MAN

d) None of the mentioned

Answer: a

146) Expand WAN

a) World area network

b) Wide area network

c) Web area network

d) None of the mentioned

Answer: b

147) A local telephone network is an example of a _____ network

a) Packet switched

b) Circuit switched

c) both of the mentioned

d) none of the mentioned

Answer: a

148) Most packet switches use this principle

a) Stop and wait

b) Store and forward

c) Both of the mentioned

d) None of the mentioned

Answer: b

Explanation: The packet switch will not transmit the first bit to outbound link until it recieves the entire packet.

149) If there are N routers from source to destination, total end to end delay in sending packet P(L->number of bits in the packet R-> transmission rate)

a) N

b) (N*L)/R

c) (2N*L)/R

d) L/R

Answer: b

150) Method(s) to move data through a network of links and switches

a) Packet switching

b) Circuit switching

c) Line switching

d) Both a and b

Answer: d

151) The resources needed for communication between end systems are reserved for the duration of session between end systems in _____

a) Packet switching

b) Circuit switching

c) Line switching

d) Frequency switching

Answer: b

152) As the resouces are reserved between two communicating end systems in circuit switching, this is achieved

a) authentication

b) guaranteed constant rate

c) reliability

d) store and forward

Answer: b

153. What is internet?

a) a single network

b) a vast collection of different networks

c) interconnection of local area networks

d) none of the mentioned

Answer:b

154. To join the internet, the computer has to be connected to a

a) internet architecture board

b) internet society

c) internet service provider

d) none of the mentioned

Answer:c

155. Internet access by transmitting digital data over the wires of a local telephone network is provided by

a) leased line

b) digital subscriber line

c) digital signal line

d) none of the mentioned

Answer:b

156. ISP exchanges internet traffic between their networks by

a) internet exchange point

b) subscriber end point

c) ISP end point

d) none of the mentioned

Answer:a

157. Which one of the following protocol is not used in internet?

a) HTTP

b) DHCP

c) DNS

d) none of the mentioned

Answer:d

158. IPv6 addressed have a size of

a) 32 bits

b) 64 bits

c) 128 bits

d) 265 bits

Answer:c

159. Internet works on

a) packet switching

b) circuit switching

c) both (a) and (b)

d) none of the mentioned

Answer:a

160. Which one of the following is not an application layer protocol used in internet?

a) remote procedure call

b) internet relay chat

c) resource reservation protocol

d) none of the mentioned

Answer:c

161. Which protocol assigns IP address to the client connected in the internet?

a) DHCP

b) IP

c) RPC

d) none of the mentioned

Answer:a

162. Which one of the following is not used in media access control?

a) ethernet

b) digital subscriber line

c) fiber distributed data interface

d) none of the mentioned

Answer:d

163. In cryptography, what is cipher?

a) algorithm for performing encryption and decryption

b) encrypted message

c) both (a) and (b)

d) none of the mentioned

Answer:a

164. In asymmetric key cryptography, the private key is kept by

a) sender

b) receiver

c) sender and receiver

d) all the connected devices to the network

Answer:b

165. Which one of the following algorithm is not used in asymmetric key cryptography?

a) RSA algorithm

b) diffie-hellman algorithm

c) electronic code book algorithm

d) none of the mentioned

Answer:c

166. In cryptography, the order of the letters in a message is rearranged by

a) transpositional ciphers

b) substitution ciphers

c) both (a) and (b)

d) none of the mentioned

Answer:a

167. What is data encryption standard (DES)?

a) block cipher

b) stream cipher

c) bit cipher

d) none of the mentioned

Answer:a

168. Cryptanalysis is used

a) to find some insecurity in a cryptographic scheme

b) to increase the speed

c) to encrypt the data

d) none of the mentioned

Answer:a

169. Which one of the following is a cryptographic protocol used to secure HTTP connection?

a) stream control transmission protocol (SCTP)

b) transport layer security (TSL)

c) explicit congestion notification (ECN)

d) resource reservation protocol

Answer:b

170. Voice privacy in GSM cellular telephone protocol is provided by

a) A5/2 cipher

b) b5/4 cipher

c) b5/6 cipher

d) b5/8 cipher

Answer:a

171. ElGamal encryption system is

a) symmetric key encryption algorithm

b) asymmetric key encryption algorithm

c) not an encryption algorithm

d) none of the mentioned

Answer:b

172. Cryptographic hash function takes an arbitrary block of data and returns

a) fixed size bit string

b) variable size bit string

c) both (a) and (b)

d) none of the mentioned

Answer:a

173) The attackers a network of compromised devices known as

a) Internet

b) Botnet

c) Telnet

d) D-net

Answer: b

174) Which of the following is a form of DoS attack ?

a) Vulnerability attack

b) Bandwidth flooding

c) Connection flooding

d) All of the mentioned

Answer: d

175) The DoS attack is which the attacker establishes a large number of half-open or fully open TCP connections at the target host

a) Vulnerability attack

b) Bandwidth flooding

c) Connection flooding

d) All of the mentioned

Answer: c

176) The DoS attack is which the attacker sends deluge of packets to the targeted host

a) Vulnerability attack

b) Bandwidth flooding

c) Connection flooding

d) All of the mentioned

Answer: b

177) Packet sniffers involve

a) Active receiver

b) Passive receiver

c) Both of the mentioned

d) None of the mentioned

Answer: b

Explanation: They donot inject packets into the channel.

178) Sniffers can be deployed in

a) Wired environment

b) WiFi

c) Ethernet LAN

d) All of the mentioned

Answer: d

179) Firewalls are often configured to block

a) UDP traffic

b) TCP traffic

c) Both of the mentioned

d) None of the mentioned

Answer: a

180. DHCP (dynamic host configuration protocol) provides _____ to the client.

a) IP address

b) MAC address

c) url

d) none of the mentioned

Answer:a

181. DHCP is used for

a) IPv6

b) IPv4

c) both (a) and (b)

d) none of the mentioned

Answer:c

182. The DHCP server

a) maintains a database of available IP addresses

b) maintains the information about client configuration parameters

c) grants a IP address when receives a request from a client

d) all of the mentioned

Answer:d

183. IP assigned for a client by DHCP server is

a) for a limited period

b) for unlimited period

c) not time dependent

d) none of the mentioned

Answer:a

184. DHCP uses UDP port ____ for sending data to the server.

a) 66

b) 67

c) 68

d) 69

Answer:b

185. The DHCP server can provide the _____ of the IP addresses.

a) dynamic allocation

b) automatic allocation

c) static allocation

d) all of the mentioned

Answer:d

186. DHCP client and servers on the same subnet communicate via

a) UDP broadcast

b) UDP unicast

c) TCP broadcast

d) TCP unicast

Answer:a

187. After obtaining the IP address, to prevent the IP conflict the client may use

a) internet relay chat

b) broader gateway protocol

c) address resolution protocol

d) none of the mentioned

Answer:c

188. What is DHCP snooping?

a) techniques applied to ensure the security of an existing DHCP infrastructure

b) encryption of the DHCP server requests

c) algorithm for DHCP

d) none of the mentioned

Answer:a

189. If DHCP snooping is configured on a LAN switch, then clients having specific _____ can access the network.

a) MAC address

b) IP address

c) both (a) and (b)

d) none of the mentioned

Answer:c

190. Real-time transport protocol (RTP) is mostly used in

a) streaming media

b) video teleconference

c) television services

d) all of the mentioned

Answer:d

191. RTP is used to

a) carry the media stream

b) monitor transmission statistics of streams

c) monitor quality of service of streams

d) none of the mentioned

Answer:a

192. RTP provides the facility of jitter ____ .

a) compensation

b) expansion

c) both (a) and (b)

d) none of the mentioned

Answer:a

193. Which protocol provides the synchronization between media streams?

a) RTP

b) RTCP

c) RPC

d) none of the mentioned

Answer:b

194. An RTP session is established for

a) each media stream

b) all media streams

c) some predefined number of media streams

d) none of the mentioned

Answer:a

195. RTP can use

a) unprevileleged UDP ports

b) stream control transmission protocol

c) datagram congestion control protocol

d) all of the mentioned

Answer:d

196. Which one of the following multimedia formats can not be supported by RTP?

a) MPEG-4

b) MJPEG

c) MPEG

d) none of the mentioned

Answer:d

197. An RTP header has a minimum size of

a) 12 bytes

b) 16 bytes

c) 24 bytes

d) 32 bytes

Answer:a

198. Which one of the following is not correct?

a) RTCP provides canonical end-point identifiers to all session participants

b) RTCP reports are expected to be sent by all participants

c) both (a) and (b)

d) none of the mentioned

Answer:d

199. Which protocol defines a profile of RTP that provides cryptographic services for the transfer of payload data?

a) SRTP

b) RTCP

c) RCP

d) none of the mentioned

Answer:a

200) Ping can

a) Measure round-trip time

b) Report packet loss

c) Report latency

d) All of the mentioned

Answer: d

201. Suppose two IPv6 nodes want to interoperate using IPv6 datagrams but are connected to each other by intervening IPv4 routers. The best solution here is

a) use dual-stack approach

b) Tunneling

c) No solution

d) Replace the system

Answer: b

Explanation: The IPv4 routers can form a tuunel.

202) Ping sweep is a part of

a) Traceroute

b) Nmap

c) Route

d) Ipconfig

Answer: b

Explanation: A ping sweep is a method that can establish a range of IP addresses which map to live hosts and are mostly used by network scanning tools like nmap.

203) ICMP is used in

a) Ping

b) Traceroute

c) Ifconfig

d) Both a and b

Answer: d

204) _____ command is used to manipulate TCP/IP routing table.

a) route

b) Ipconfig

c) Ifconfig

d) Traceroute

Answer: a

205) If you want to find the number of routers between a source and destination, the utility to be used is.

a) route

b) Ipconfig

c) Ifconfig

d) Traceroute

Answer: d

206) Which of the following is related to ipconfig in Microsoft Windows ?

a) Display all current TCP/IP network configuration values

b) Modify DHCP settings

c) Modify DNS settings

d) All of the mentioned

Answer: d

207) This allows to check if a domain is available for registration.

a) Domain Check

b) Domain Dossier

c) Domain Lookup

d) None of the mentioned

Answer: a

208) Choose the wrong statement

a) Nslookup is used to query a DNS server for DNS data

b) Ping is used to check connectivity

c) Pathping combines the functionality of ping with that of route

d) Ifconfig can configure TCP/IP network interface parameters

Answer: c

Explanation: Pathping combines the functionality of ping with that of traceroute (tracert).

209) Expansion of FTP is

a) Fine Transfer Protocol

b) File Transfer Protocol

c) First Transfer Protocol

d) None of the mentioned

Answer: b

210) FTP is built on _____ architecture

a) Client-server

b) P2P

c) Both of the mentioned

d) None of the mentioned

Answer: a

211) FTP uses _____ parallel TCP connections to transfer a file

a) 1

b) 2

c) 3

d) 4

Answer: b

Explanation: Control connection and data connection.

212) Identify the incorrect statement

a) FTP stands for File Transfer Protocol

b) FTP uses two parallel TCP connections

c) FTP sends its control information in-band

d) FTP sends exactly one file over the data connection

Answer: c

Explanation: FTP is out-of-band as it has separate control connection.

213) If 5 files are transfered from server A to client B in the same session. The number of TCP connection between A and B is

a) 5

b) 10

c) 2

d) 6

Answer: d

Explanation: 1 control connection and other 5 for five file transfers.

214) FTP server

a) Mantains state

b) Is stateless

c) Has single TCP connection for a file transfer

d) None of the mentioned

Answer: a

Explanation: None.

215) The commands, from client to server, and replies, from server to client, are sent across the control connection in ____ bit ASCII format

a) 8

b) 7

c) 3

d) 5

Answer: b

216) Find the FTP reply whose message is wrongly matched

a) 331 – Username OK, password required

b) 425 – Can’t open data connection

c) 452 – Error writing file

d) 452 – Can’t open data connection

Answer: d

217) Mode of data transfer in FTP, where all the is left to TCP

a) Stream mode

b) Block mode

c) Compressed mode

d) None of the mentioned

Answer: a

218) The password is sent to the server using _____ command

a) PASSWD

b) PASS

c) PASSWORD

d) None of the mentioned

Answer: b

219. The number of objects in a Web page which consists of 4 jpeg images and HTML text is _____

a) 4

b) 1

c) 5

d) None of the mentioned

Answer: c

Explanation: 4 jpeg images + 1 base HTML file.

220. The default connection type used by HTTP is _____

a) Persistent

b) Non-persistent

c) Either of the mentioned

d) None of the mentioned

Answer: a

221. The time taken by a packet to travel from client to server and then back to the client is called ____

a) STT

b) RTT

c) PTT

d) None of the mentioned

Answer: b

Explanation: RTT stands for round-trip time.

222. The HTTP request message is sent in ____ part of three-way handshake.

a) First

b) Second

c) Third

d) None of the mentioned

Answer: c

223. In the process of fetching a web page from a server the HTTP request/response takes _____ RTTs.

a) 2

b) 1

c) 4

d) 3

Answer: b

224. The first line of HTTP request message is called ____

a) Request line

b) Header line

c) Status line

d) Entity line

Answer: a

Explanation: The line followed by request line are called header lines and status line is the initial part of response message.

225. The values GET, POST, HEAD etc are specified in ____ of HTTP message

a) Request line

b) Header line

c) Status line

d) Entity body

Answer: a

Explanation: It is specified in the method field of request line in the HTTP request message.

226. The _____ method when used in the method field, leaves entity body empty.

a) POST

b) GET

c) Both of the mentioned

d) None of the mentioned

Answer: b

227. The HTTP response message leaves out the requested object when _____ method is used

a) GET

b) POST

c) HEAD

d) PUT

Answer: c

228. Find the oddly matched HTTP status codes

a) 200 OK

b) 400 Bad Request

c) 301 Moved permanently

d) 304 Not Found

Answer: d

229. Which of the following is not correct ?

a) Web cache doesnt has its own disk space

b) Web cache can act both like server and client

c) Web cache might reduce the response time

d) Web cache contains copies of recently requested objects

Answer: a

12. The conditional GET mechanism

a) Imposes conditions on the objects to be requested

b) Limits the number of response from a server

c) Helps to keep a cache upto date

d) None of the mentioned

Answer: c

230. Which of the following is present in both an HTTP request line and a status line?

a) HTTP version number

b) URL

c) Method

d) None of the mentioned

Answer: a

231. Which of the following is not applicable for IP?

a) Error reporting

b) Handle addressing conventions

c) Datagram format

d) Packet handling conventions

Answer: a

Explanation: Error reporting is handled by ICMP.

232. Which of the following field in IPv4 datagram is not related to fragmentation?

a) Flags

b) Offset

c) TOS

d) Identifier

Answer: c

Explanation: TOS-type of service identifies the type of packets.

233. The TTL field has value 10. How many routers (max) can process this datagram?

a) 11

b) 5

c) 10

d) 1

Answer: c

Explanation: TTL field is decremented by one each time the datagram is processed by a router.

234. If the value in protocol field is 17, the transport layer protocol used is ____.

a) TCP

b) UDP

c) Either of the mentioned

d) None of the mentioned

Answer: b

Explanation: For TCP it is 6.

235. The data field can carry which of the following?

a) TCP segemnt

b) UDP segment

c) ICMP messages

d) None of the mentioned

Answer: c

Explanation: Data field usually has tranaport layer segment, but it can also carry ICMP messages.

236. What should be the flag value to indicate the last fragment?

a) 0

b) 1

c) TTl value

d) None of the mentioned

Answer: a

Explanation: flag=0 indicates that it is the last fragment.

237. Which of these is not applicable for IP protocol?

a) is connectionless

b) offer reliable service

c) offer unreliable service

d) None of the mentioned

Answer: b

Explanation: Ip offers unreliable service.

238. Fragmentation has following demerits

a) complicates routers

b) open to DOS attack

c) overlapping of fragments.

d) All of the mentioned

Answer: d

Explanation: Fragmentation makes the implementation complex and also can create DOS attack.

239. Which field helps to check rearrangement of the fragments?

a) offset

b) flag

c) TTL

d) identifer

Answer: a

Explanation: offset field specifies where the fragment fits in the original datagram.

240. The size of IP address in IPv6 is

a) 4bytes

b) 128bits

c) 8bytes

d) 100bits

Answer: b

Explanation: An IPv6 address is 128 bits long.

241. The header length of an IPv6 datagram is _____.

a) 10bytes

b) 25bytes

c) 30bytes

d) 40bytes

Answer: d

Explanation: IPv6 datagram has fixed header length of 40bytes, which results is faster processing of the datagram.

242. In the IPv6 header,the traffic class field is similar to which field in the IPv4 header?

a) Fragmentation field

b) Fast-switching

c) ToS field

d) Option field

Answer: c

Explanation: This field enables to have different types of IP datagram.

243. IPv6 doesnot use _____ type of address

a) Broadcast

b) Multicast

c) Anycast

d) None of the mentioned

Answer: a

Explanation: Broadcast has been eliminated in IPv6.

244. These are the features present in IPv4 but not in IPv6.

a) Fragmentation

b) Header checksum

c) Options

d) All of the mentioned

Answer: d

Explanation: All the features are only present in IPv4 and not IPv6.

245. The ____ field determines the lifetime of IPv6 datagram

a) Hop limit

b) TTL

c) Next header

d) None of the mentioned

Answer: a

Explanation: The Hop limit value is decremented by one by a router when the datagram is forwaded by the router. When the value becomes zero the datagram is discarded.

246. Dual-stack approach refers to

a) Implementing Ipv4 with 2 stacks

b) Implementing Ipv6 with 2 stacks

c) Node has both IPv4 and IPv6 support

d) None of the mentioned

Answer: c

Explanation: dual-stack is one of the approach used to support IPv6 in already existing systems.