Computer Network

CS610

For FINAL TERM

Leacture WISE MCQS, Important Topics and All Past papers repeated MCQS and Questions

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BSCS 4th SEMESTER

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1. Which of the following is not the requirement of routing function?
   - Correctness
   - Robustness
   - Delay Time
   - Stability
2. **protocol address of the next hop must be _____ to an equivalent hardware address before a packet can be sent.**
   a. Encrypted
   b. Decrypted
   c. Translated
   d. Non of these
3. **A _____ address-binding table is used for each physical network.**
   New
   Similar
   Separate
   Old
4. **UDP provides connection-oriented service.**
   True
   False
5. **The UDP stands for_____.**
   Universal Datagram Protocol
   User Datagram Protocol
   United Datagram Protocol
   None of the given
6. **In 3-way handshake TCP requires to generate a random _____ sequence number.**
   30 bit
   32 bit
   34 bit
   none of the given
7. **TCP stands for _____**
   Transmission control protocol
   Terminal control protocol
   File Version 2.0.1
   None of the given
8. **As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of three possible sizes.**
   True
   False
9. **Twice NAT allows a site to run servers.**
   True
   False
10. **Preliminary version of IP was called _____.**
    IP - New Generation (IPng)
    IP - Next Generation (IPng)

IP - Net Generation (IPng)
None of the given

11. **The Internet service providers coordinate with the Internet assigned number authority to obtain their network numbers.**
True
False
12. **Which protocol is used to test different tools.**
ICMP
IGMP
TCP/IP
none of the given
13. **The Source can configure outgoing datagram's to avoid _____**
Segmentation
Defragmentation
Fragmentation
None of the given
14. **The time for acknowledgement to arrive depends on _____**
Distance to destination
Current traffic conditions
Both a and b
None of the given
15. **Which is not the type of error messages defined by ICMP?**
Source quench
Time exceeded
Destination unreachable
None of the given
16. **_____ is used to attach two autonomous systems.**
BGP
IGP
EGP
none of the given
17. **Due to revolutionalization of IP-V6 the speed has increased from _____**
56kbps to 512kbps
512kbps to 1gbps
56kbps to 1gbps
none of the given
18. **Whenever it handles a packet, IP software needs to separate the destination address into a prefix.**
True
False
19. **TTL stands for _____**
Time to Learn
Time to Leave
Time to Live
none of the given
20. **IGPs stand for _____**
Internal Gateway Protocols
Interior Gateway Protocols
Intermediate Gateway Protocols
None of the given

21. **_____encapsulates IP datagram as data area in hardware frame.**
Network Interface Layer
Datalink Layer
Network Layer
None of the given
22. **Class A mask is 255.0.0.0 which is used for _____**
Unicasting
Multicasting
Subnetting
All of the given
23. **NAT is not useful at a residence with Cable Modem or DSL connectivity.**
True
False
24. **Autonomous System chooses a routing protocol to exchange routing information which is passed before being summarized to another group.**
True
False
25. **_____ layer Provides reliable delivery of datagram.**
Network
Transport
Datalink
none of the given
26. **The process of using a routing table to select a next hop for a given datagram is called_____.**
Encapsulation
Reassembling
Routing or forwarding
None of the given
27. **The process of learning the path MTU is known as path MTU discovery.**
True
False
28. **As the Internet grew, the original Classful addressing scheme became a limitation. The IP address space was being exhausted because all networks had to choose one of _____ possible sizes.**
three
two
four
five
29. **End to End delivery Service of IP datagram is _____**
Connection oriented
Connectionless
both a and b
none of the given
30. **EGP stands for _____**
Extension Gateway Protocol
Exterior Gateway Protocol
Explicit Gateway Protocol
none of the given

31. **Hashing is the transformation of a string of characters into a usually shorter fixed-length value or a key that represents the original string.**
    True
    False
32. **Although the ARP message format is sufficiently general to allow arbitrary protocol and hardware addresses.**
    ARP is almost always used to bind a 32-bit IP address to a ____ Ethernet address.
    16-bit
    48-bit
    64-bit
    128-bit
33. **Reliability is not the responsibility of the Transport layer.**
    Select correct option:
    True
    False
34. **IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.**
    96
    100
    120
    none of the given
35. **NAT software does not allow a PC to connect with the Internet and act as a NAT device at the same time.**
    True
    False
36. **TCP uses the term segment to refer to a _____.**
    packet
    message
    both (a) and (b)
    None of the given
37. **The Universal Datagram Protocol is a message-oriented protocol.**
    True
    False
38. **_____field tells the receiver how to order fragments within a given datagram.**
    FLAGS
    FLAGMENT OFFSET
    IDENTIFICATION
    None of the given
39. **IP datagram can contains _____ octets.**
    0-65,535
    1 -65,535
    1 -65,536
    none of the given
40. **The amount of buffer space available at any time is called the window.**
    True
    False
41. **_____ Source is responsible for fragmentation.**
    IPV4
    IPV6

IPV3
IPV5

42. **Routers use _____ to forward datagrams along prearranged path.**
Traffic class
Flow label
Destination address
none of the given

43. **_____ protocol uses three way handshake to begin a connection.**
UDP
TCP
IP
none of the given

44. **Typical internet routing uses uses a combination of two metrics_____.**
routing metrics
administrative cost and routing metrics
hop cost
administrative cost and hop count

45. **Network Address and Port Translation (NAPT) is by far the most popular form of _____**
Network Address Transmission
Network Address Translation
Network Address Transformation
None of the given

46. **The routers within an autonomous system use a _____ to exchange routing information.**
Interior Gateway protocols(IGPs)
Exterior Gateway protocol (EGPs)
Both Interior Gateway protocols(IGPs) and Exterior Gateway protocol (EGPs)
None of the given

47. **Interior Gateway Protocols (IGPs) and Exterior Gateway Protocols (EGPs) two broad classes of Internet Routing Protocol.**
True
False

48. **The Network Layer Protocol ICMP stands for_____**
Instant Control Message Protocol
Internet Control Message Protocol
Initial Control Message Protocol
None of the given

49. **The Current version of IP-Version 4 is _____ old**
18 years
20 years
22 years
none of given

50. **TCP is a connectionless and reliable transport protocol.**
Select correct option:
True
False

51. **ATM header is about the_____of the cell.**
15%

10%
20%
5%

52. **Jitter is significance for _____**
Voice
Video
Data
All of above
53. **How many methods exist for building routing table?**
1
234
54. **The process of forwarding the packets of information is called routing. The routing table contains information about the _____ immediately around it**
Topology of the network
Destination
Both of the above
None of the above
55. **Which of the following statement is true regarding ATM?**
It is a single technology for voice, video and data
It has low jitter and high capacity
It uses fixed sized small cells. 48 octet's data
All of the above
56. **A ____ can forward or block messages based on the information in the message itself**
Message digest
Proxy firewall
Packet filter firewall
Private Key
57. **Transmission media are usually categorized as**
Guided or unguided
Fixed or unfixed
Determinate or indeterminate
Metallic or nonmetallic
58. **Which of the following is not a guided medium?**
Twisted-pair cable
Fiber-optic cable
Atmosphere
Coaxial Cable
59. **Which multiplexing technique transmits digital signals?**
WDM
FDM
TDM
None of the above
60. **All destinations on same switch have same _____**
Router
Information
Next Hop
None of the above

61. **Which of the following statement is true regarding Distance-Vector Routing?**
It is very simple to implement.
Packet switch updates its own routing table first
It is used in RIP.
All of the above
62. **An exterior switch is one with which _____**
Computers are attached
No computer is attached
Hubs are attached externally
None of the above
63. **Frame relay is _____**
Connection oriented service
Connectionless service
It is typically ranges from 5Mbps to 1000Mbps.
None of the above
64. **An interior switch is one with which _____**
Computers are attached
No computer is attached
Computers are attached internally
None of the above
65. **Which of the following is not a benefit of source independence?**
It allows fast and efficient routing.
Packet switch do not need to have complete information about all destinations
Network functions even if topology changes
None of the above
66. **Which of the following statement regarding ATM is true?**
Connections in ATM are called virtual channels
The VC is identified by a 24-bit value formed from the VPI
Both (a) and (b)
None of the above
67. **How many methods exist for computing routing table?**
Select correct option:
5
4
3
2
68. **Which of the following statement is true regarding Distance-vector routing?**
It is very simple to implement.
Packet switch updates its own routing table first.
It is used in RIP.
All of the above
69. **Which one of the following is a property of static routing?**
It is inflexible
It is done at boot time
It has low network overload
All of the above
70. **Asynchronous Transfer Mode uses the concept of ----------.**
Connection-less networking
Connection-oriented networking

71. **Which multiplexing technique shifts each signal to a different carrier frequency?**
TDM
FDM
Both a and b
None of the above
72. **LAN networks can not be extended to very large networks because of the limitations of.....**
Area
Distance
Routers
Technology
73. **Which of the following statement is wrong regarding ATM?**
It is a single technology for voice, video and data
It has low jitter and high capacity.
It uses fixed size, small cells, and 48 octet's data
None of the above
74. **Which one of the following is the responsibility of Djikstra' algorithm?**
To compute the shortest path between two nodes
To extract next hop information from path information
To insert next hop information into routing table
All of the above
75. **Which one of the following is a property of dynamic routing?**
It is inflexible
It has low network overload
It can work around network failure
All of the above
76. **Which of the following statement is true regarding ATM?**
ATM is a single technology that is designed to meet the goals of both LANs and WANs.
ATM uses the concept of connection-oriented networking.
Both (a) and (b)
None of the above
77. **Source independence is a phenomena in which next hop to destination does not depend on the----------**
Source of packet
Destination of packet
No of hops
Source of protocol
78. **If a computer on the network shares resources for others to use, it is called ____**
Server
Client
Mainframe
79. **Terminators are used in _____ topology.**
Bus
Star
80. **In _____ topology, if a computer's network cable is broken, whole network goes down.**
Bus
Star

81. **For large networks, _____ topology is used.**
Bus
Star
Ring
82. **ISO stands for**
International Standard Organization
International Student Organization
Integrated Services Organization
83. **ISO OSI model is used in**
Stand alone PC
Network environment
84. **Network cable lies on _____ layer**
Application
Network
Physical
85. **____ Layer decides which physical pathway the data should take.**
Application
Network
Physical
86. **ISDN is an example of _____ network**
Circuit switched
Packet switched
87. **X.25 is an example of _____ network**
Circuit switched
Packet switched
88. **_____ allows LAN users to share computer programs and data.**
Communication server
Print serve
. File server
89. **Print server uses _____ which is a buffer that holds data before it is send to the printer.**
Queue
Spool
Node
90. **A standalone program that has been modified to work on a LAN by including concurrency controls such as file and record locking is an example of____**
LAN intrinsic software
LAN aware software
Groupware
LAN ignorant software
91. **The _____ portion of LAN management software restricts access, records user activities and audit data etc.**
Configuration management
Security management
Performance management
92. **What is the max cable length of STP?**
100 ft
200 ft

100 m
200 m

93. **What is the max data capacity of STP?**
10 mbps
100 mbps
1000 mbps
10000 mbps

94. **17. Which connector STP uses?**
a. BNC
b. RJ-11
c. RJ-45
d. RJ-69

18. What is the central device in star topology?
a. STP server
b. Hub/switch
c. PDC
d. Router

95. **What is max data capacity for optical fiber cable?**
a. 10 mbps
b. 100 mbps
c. 1000 mbps
d. 10000 mbps

96. **In Direct point to point communication adding the Nth computer requires---------- new connections.**
► None of the given
► N2
► N-1
► (N2 –N)/2

97. **In Point-to-Point topology there are two topologies.**
► Tree and Ring
► Star and Ring
► Star and Tree
► None of the given

98. **In ----------, network occupies the smaller area like a room a floor or a building**
► LAN
► WAN
► MAN
► None of the given

99. **Hardware that calculates a CRC uses two simple components .**
► AND unit and XOR unit
► Shift register and XOR unit
► Shift register and AND unit
► none of the given

100. **The Gigabit Ethernet hardware operates at a rate of --------**
► 10 Mbps
► 100 Mbps
► 1000 Mbps
► None of the given

101. **formally named _____ informally known as the twisted pair Ethernet or TP Ethernet.**

► 10 Base 2
► 10 Base 5
► **10 Base T**
► none of the given

102. **An interface for thin Ethernet must have an _____ connector , and must generate signals according to the_____ specification.**
► **RJ-45, 10 Base T**
► RJ-45, 10 Base 5
► BNC, 10 Base 2
► BNC, 10 Base T

103. **A system with redundant bridges might have a problem with_____ in the system .**
► **Loop**
► Filters
► Spanning Trees
► All given choices

104. **_____ computes shortest paths in a graph by using weights on edges as a measure of distance.**
► Greedy algorithm
► Distance vector algorithm
► **Dijksta's algorithm**
► none of the given

105. **Basic LAN technologies such as Ethernet, Token Ring, and FDDI use a _____.**
► Connectionless service paradigm
► Connection-oriented service paradigm
► **Both Connectionless and Connection-oriented service paradigm**
► None of the given

106. **_____ protocols of TCP/IP layering model specify how to ensure reliable transfer.**
► Physical Layer
► Network Interface Layer
► Internet Layer
► **Transport Layer**

107. **An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host**
► 48-bit
► **32-bit**
► 24-bit
► None of the given

108. **the address _____ identifies the physical network to which the computer is attached, while the _____ identifies an individual computer on that network.**
► Prefix, suffix
► **suffix, prefix**
► suffix, suffix
► none of the given

109. **_____ places the boundary between the first and second octets**
- **► Class A**
- ► Class B
- ► Class C
- ► Class D

110. **_____ places the boundary between the third and fourth octets.**
- ► Class A
- ► Class B
- **► Class C**
- ► Class D

111. **_____ field of header indicates whether a datagram is a fragment or a complete datagram .**
- ► FLAGS
- ► FLAGMENT OFFSET
- ► IDENTIFICATION
- **► None of the given**

112. **_____ provides connectionless service.**
- ► TCP
- **► UDP**
- ► IP
- ► none of the given

113. **UDP and TCP are both_____ layer protocols**
- ► Physical
- ► Data link
- ► Network
- **► Transport**

114. **Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection start-up and Graceful connection shutdown are the services provided by_____**
- ► IP
- ► None of the given
- **► TCP**
- ► UDP

115. **_____identifies which application program on receiving computer should receive the data**
- ► Logical address
- ► Source port
- **► Destination Port**
- ► None of the given

116. **_____ identifies the application program that sent the data.**
- ► Destination Port
- **► Source port**
- ► Logical address
- ► None of the given

117. **The Border Gateway Protocol (BGP) uses_____ for all communication**
- ► UDP
- **► TCP**

► Both UDP and TCP
► none of the given

118. **_____ uses distance vector approach to define routing**
► BGP
► OSPF
► **RIP**
► None of the given

119. **ICMP message transport is acted upon by getting ICMP encrypted in IP.**
► **True**
► False

120. **Protocol addresses are abstractions provided by _____.**
► hardware
► **software**
► operating system
► internet

121. **These packets serve same purpose on _____ as frames on _____**
► Intranet, LAN
► Internet, WAN
► Intranet, WAN
► **Internet, LAN**

122. **Address mask defines how many bits of address are in suffix?**
► True
► **False**

123. **a single networking technology is best for all needs.**
► True
► **False**

124. **A computer attached to a given network can only communicate with other computers attached to the same network. Is this a problem with multiple networks?**
► **True**
► False

125. **The term self-identifying is used for Classful IP addresses because the class of the address can be computed from the address_____.**
► **Itself**
► prefix
► suffix
► mask

Find the class of the address.

126. **10100111 11011011 10001011 01101111**
► A
► **B**
► E
► C

127. **Find the class of the address:**
11110011 10011011 11111011 00001111
► A
► C
► **E**
► B

128. **In which method of Address Resolution Protocol the protocol address is determined by hardware address? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?**
- ► T
- ► D
- ► **C**
- ► T, C

129. **Which method of Address Resolution Protocol requires hardware broadcast?**
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?
- ► **D**
- ► T
- ► C
- ► T, D **://vuzs.net**

130. **Which method of Address Resolution Protocol resolution with minimum delay?**
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?
- ► T, D
- ► c
- ► T
- ► **T, C**

131. **In which method of Address Resolution Protocol the implimentation is more difficult?**
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?
- ► T, C
- ► T
- ► C
- ► **D**

132. **On of the design goals for unicast route propagation is _____.**
- ► Consistency
- ► inconsistency
- ► **stability**
- ► dynamic addressing

133. **Propagation multicast routing information differs dramatically from unicast route propagation?**
- ► **True**
- ► False

134. **To save traffic, an EGP does not summarize routing information from the autonomous system before passing it to another autonomous system.**
- ► True
- ► **False**

135. **In IPv6 the type of address used for collection of computers with same prefix. Are known as_____.**
- ► Anycast
- ► Unicast
- ► Multicast
- ► **Non of the given**

136. **Special types of addresses in IPv6 used for multiple destinations; possibly not same site. Are known as_____**
- ► Unicast
- ► Anycast
- ► **Multicast**
- ► none of the given

137. **UDP offers application programs a Message-Oriented Interface, applications can depend on protocol to preserve data boundaries.**
- ► **True**
- ► False

138. **Reliability is the responsibility of the _____ layer**
- ► Network
- ► Data link
- ► **Transport**
- ► Application

139. **TCP uses _____ mechanism to control the flow of data.**
- ► door
- ► **window**
- ► acknowledgment
- ► retransmission

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- ► **N-1**
- ► (N2 –N)/2

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- ► WAN
- ► MAN
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- ► **Shift register and XOR unit**
- ► Shift register and ANDunit
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- ► Filters
- ► Spanning Trees
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- ► Distance vector algorithm
- ► **Dijksta's algorithm**
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- ► Connection-oriented service paradigm
- ► **Both Connectionless and Connection-oriented service paradigm**
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150. **An Internet Address (IP address) is a unique _____ binary number assigned to a host and used for all communication with host**
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- ► **32-bit**
- ► 24-bit
- ► None of the given

151. **Connection-oriented service, Point-to-point, Complete reliability, Full-duplex communication, Stream interface, Reliable connection startup and Graceful connection shutdown are the services provided by_____**
- ► IP
- ► None of the given
- ► TCP
- ► UDP

152. **Which method of Address Resolution Protocol resolution with minimum delay? Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?**
- ► T, D
- ► c

► T
► **T, C**

153. **In which method of Address Resolution Protocol the implementation is more difficult?**
Were "T" stands for Table lookup, "C" for Closed-form Computation and "D" for Data Exchange?
► T, C
► T
► C
► **D**

154. **The time for acknowledgement to arrival of packet depends on.**
► **Distance to destination and Current traffic conditions**
► Current traffic conditions
► Distance to destination
► non of these

155. **FDDI can transmits data at a rate of ----------**
► **100 million bits per second**
► 10 million bits per second
► 1000 million bits per second
► None of the given

156. **---------- is also called self-healing network**
www.vukamoke.blogspot.com
Select correct option:
ATM
FDDI (Correct)
Token Ring
None of the given

157. **Most LANs that employ ring topology use an access mechanism known as ----**
CSMA/CD
CSMA/CA
CSMA
TOKEN PASSING (Correct)

158. **An ----------method, the network hardware designers specify how type information is included in the frame and the value use to identify various frame types.**
Explicit frame type (Correct)
Ideal frame type
Implicit frame type
None of the given

159. **Hardware that calculates a CRC uses two simple components.**
Select correct option:
AND unit and XOR unit
Shift register and XOR unit (Correct)
Shift register & AND unit
Shift register and shift XOR unit

160. The Ethernet standard specifies that frames are sent using the --------
Select correct option:
Differential Manchester
Not Return to Zero (NRZ)

Manchester Encoding (Correct)
Return to Zero (RZ)

161. **When an application ---------- data, it makes a copy of the data available to all other computers on the network.**
Broadcasting (Correct)
Multicasting
Unicasting
None of the given

162. **LAN interface may use ---------- to copy frame data directly from main memory.**
DMA (Correct)
FDDI
CSMA/CD
None of the given

163. **LAN and WAN are classified according to their.....**
Size (Correct)
Connectivity
Medium
Mobility

164. **For how much time would other computers be in wait while one computer was transferring 56MB file with transmission speed of 56Kbps**
10 Sec
11 Sec
12 Sec
13 Sec

165. **A network uses _____ to arrange computers to be connected in a single closed loop.**
Select correct option:
Star Topology
Dual Ring Topology
Ring Topology (Correct)
Bus Topology

166. **Which one of the following is a method for computing routing table information?**
Select correct option:
Manual entry
Static routing (Correct)
Boot time routing
None of the above

167. **Thin Ethernet is known as----------**
10Base2 (Correct)
10Base5
10BaseT
All of above

168. **The basic responsibility of NIC is ----------**
To access medium/network
To resource allocation
To access memory
All of above (Correct)

169. **How many methods exist for building routing table?**
Select correct option:
1
2 (Correct)
3
4

170. **The process of forwarding the packets of information is called…….**
Routing (Correct)
Switching
Communication
None of the above

171. **The term signaling is used to describe----------** Select correct option:
Communication about the internet (Correct)
Communication about the extranet
Communication about the network
None of above

172. **Which of the following statement is true regarding ATM?**
It is a single technology for voice, video and data
It has low jitter and high capacity.
It uses fixed size, small cells, 48 octet's data
All of the above (Correct)

173. **An interior switch is one with which …….**
Computers are attached
No computer is attached (Correct)
Computers are attached internally
None of the above

174. **Network interface card acts like a (an) ----------**
Input/output device
Input device
Output device
All of above (Correct)

175. **The Network Layer Protocol ICMP stands for_____**
Select correct option:
Instant Control Message Protocol (Correct)
Internet Control Message Protocol
Initial Control Message Protocol
None of the given

176. **Due to revolutionalization of IP-V6 the speed has increased from _____**
56kbps to 512kbps
512kbps to 1gbps
56kbps to 1gbps (Correct)
none of the given

177. **_____ Protocol provides error reporting mechanism.**
Select correct option:
IGMP
SNMP
ICMP (Correct)
none of the given

178. **IPV6 addresses are _____ bits.**
32

64
128 (Correct)
256

179. **A _____ address-binding table is used for each physical network.**
new
similar
separate (Correct)
Source port
Logical address
None of the given

180. **TCP/IP defines the term_____ to refer any computer system that connects to an internet and runs applications** Select correct option:
Router
Host computer (Correct)
Bridge
None of the given

181. **The Universal Datagram Protocol is not an end-to-end protocol.**
True (Correct)
False

182. **In _____ routing, the table is initialized when system boots and there is no further changes.**
Dynamic
Static
Both (a) and (b) (Correct)
None of the given

183. TCP uses _____format for all messages.

a. Single

b. Double
c. Multiple

d. None of the given

184. The maximum segment size of TCP flow control is _____

a. 3000 octets

b. 2000 octets

c. 1000 octets

d. None of the given

185. In TCP when a computer sends a segment, the _____ and _____

fields refer to incoming data.

a. ACKNOWLEGE NUMBER, WINDOW

b. SEQUENCE NUMBER, WINDOW

c. ACKNOWLEGE NUMBER, SEQUENCE NUMBER

d. None of the given

186. _____ is used for single destination computer.

a. Multicast

b. Broadcast

c. Unicast

d. None of the given

187. Postfix defines how much of address used to identify network.

a. True

b. False

188. _____ Source is responsible for fragmentation.

a. IPV4

b. IPV6

188. H.LEN shows the header length in units of _____ bits

a. 34

b. 32

c. 30

d. None of the given

189. NAT stands for _____

a. Network Address Translation

b. Network Address Transmission

c. Network Address Test

d. None of the given

190. _____ Serve Same purpose in Internet as frames on LAN

a. Packets

b. Virtual Packets

c. Virtual Frames

d. Both b and c

191. The amount of buffer space available at any time is called the window.

a. True

b. False

191. NEXT HEADER field in the base header defines type of header it appears at the end of fixed-size base header.

a. True

b. False

192. _____ uses window mechanism to control the flow of data.

a. IP

b. UDP

c. TCP

d. None of the given

193. The Header format of IPv6 is entirely different.

a. True

b. False

194. UDP packet is encapsulated in _____ datagram.

a. IP

TCP

b. TCP/IP

c. None of the given

195. Reliability is not the responsibility of the Transport layer.

a. True

b. False

196. Twice NAT is another variant of NAT. it is used with site that runs server. In this process NAT box is connected to Domain Name.

a. False

b. True

197. A popular use of _____ is TCP Splicing. It interconnects two independent TCP connections and performs segment rewriting.

a. NAT

b. NAPT

c. Twice NAT

d. All of these

198. The goal of _____ is to avoid adding retransmissions to an already congested network.

a. Packet control

b. Congestion control

c. Transmission control

d. None of the given

199. IPV6 128 bits address includes network prefix and _____.

a. Host Suffix

b. Host prefix

c. Source Prefix

d. None of the given

200. TCP achieves _____ by retransmission.

a. Efficiency

b. Accuracy

c. Reliability

d. None of the given

201. Class A mask is 255.0.0.0 which is used for _____

a. Unicasting

b. Multicasting

c. Subnetting

d. All of the given

202. TCP is a _____
protocol.

a. Point-to-Point

b. Multi-Point

c. Both a and b

d. None of the given

203. There are _____ possibilities to detect the destination using Trace-route.

a. 1

b. 2 **HO Page 118**

c. 3

d. None of the given

204. The UDP stands for _____.

a. Universal Datagram Protocol

b. User Datagram Protocol

c. United Datagram Protocol

d. None of the given

205. _____ is less complex and easy to understand.

a. TCP

b. UDP

c. IP

d. None of the given

206. In IPV6 the 128 bit addresses unwidely in dotted decimal; requires _____ numbers.

a. 12

b. 14

c. 16

d. None of the given

207. TCP connections are not called Virtual connections.

a. True

b. False

208. Header contains all information needed to deliver datagram to the destination computer. But which one of the following is not included:

a. Destination address

b. Source address

c. Rectifier

d. Other delivery information

209. Twice NAT fails if an application uses the IP addresses instead of Domain Name.

a. True

b. False

210. _____ sends ICMP echo messages with increasing TTL.

a. Ping

b. Trace route

c. Tracert

d. None of the given

211. IPv6 _____ is responsible for fragmentation. Routers simply drop datagram's larger than network

a. Destination

b. Intermediate routers

c. Source

d. Medium

212. UDP follows four types of interactions.

a. True

b. False

213. For _____, information about forwarding is stored in a routing table,

which is initialized at system initialization and must be updated as network topology changes.

a. Efficiency

b. Security

c. Accuracy

d. Anomalies

214. TCP provides reliable connection startup.

a. True

b. False

215. _____ encapsulates IP datagram as data area in hardware frame.

a. Network Interface Layer

b. Datalink Layer

c. Network Layer

d. None of the given

216. NAT software does not allow a PC to connect with the Internet and act as a NAT device at the same time.

a. True

b. False

217. _____ protocol uses three way handshake to begin a connection.

a. UDP

b. TCP

c. IP

d. none of the given

218. MTU Stands for _____

a. Minimum transmission unit

b. Maximum transmission unit

c. Multicast transmission unit

d. None of the given

219. Fragmentation when using ICMP for path MTU should be avoided.

a. True

b. False

220. System rebooting is one of the major problems in the reliable delivery

a. True

b. False

230. Twice NAT requires the DNS to interact with the NAT device.

a. True

b. False

231. Twice NAT allows a site to run servers.

a. True HO page 132

b. False

232. TCP provides _____ communication.

a. Half-duplex

b. Full-duplex

c. Both (a) and (b)

d. None of the given

233. Routing refers to the _____ of routing information.

a. transmission

b. propagation HO page 133

c. communication

d. None of the given

234. Basic NAT does not work well to communication initiated from the internet.

a. True HO page 132

b. False

235. NAT device stores state information in translation table.

a. True HO page 130

b. False

236. HEADER LEN field gives size of extention header.

a. False

b. True

237. In TCP/IP, _____ provides reliable transport service.

a. IP

b. TCP

c. Both IP and TCP

d. None of the given

238. Network Address Translation (NAT) requires device to perform packet translation.

a. True HO Page 128

b. False

239. UDP datagram format is _____ bits.

a. 8

b. 16

c. 32

d. 64

240. Which one is NOT the function of ping program

a. Traceability

b. Reachability

c. Both a and b

d. None of the given

241. NAPT stands for _____.

a. Network Address and Protocol Translation

b. Network Address and Port Translation

c. Network Address and Packet Translation

d. None of the given

242. UDP uses best-effort delivery service.

a. True

b. False

243. ICMP message transport is acted upon by getting ICMP _____ in IP

a. De-encapsulated

b. Encapsulated HO page 117

c. Segmented

d. none of the given

244. _____ contains all information needed to deliver datagram to the destination.

a. Header

b. Data Area

c. Identifier

d. none of the given

245. Network having short intervals has a large timeout and the network having large interval has short timeout.

a. True

b. False

246. One of the parameters, which motivated IP for change is address space. The_____address space allows for over a million networks. But most networks are class C and too small for many organizations.

a. 32-bit

b. 128-bit

c. 16-bit

d. 64-bit

247. Every hardware technology specification includes the definition of the

maximum size of the frame data area, which is called the _____

Transmission Unit.

a. Least

b. Maximum

c. Fragment

d. Frame

248. _____provides computer to computer communication.

a. IP

b. TCP

c. ICMP

d. IGMP

249. Address mask defines how many bits of address are in prefix.

a. True

b. False

250. _____ shows senders preference for low latency, high Reliability.

a. TYPE

b. SERVICE TYPE

c. SERVICE PRIORITY

d. None of the given

251. _____ is a technique used to Limit datagram size to small MTU of any network

a. Segmentation

b. Fragmentation

c. Encapsulation

d. None of the given

252. _____ Message is sent in response to incoming datagrams with problems.

a. TCP/IP

b. IGMP

c. ICMP

d. none of the given

253. _____ is a type of address used for collection of computers with same prefix.

a. Cluster

b. unicast

c. Multicast

d. none of the given

254. _____ field is used to identify a specific path through the network

a. FLOW LABEL

b. TRAFFIC CLASS

c. Both a and b

d. none of the given

255. TCP is not connection-oriented service.

a. True

b. False

256. IPV6 address with _____ leading zeros is interpreted to hold an IPV4 address.

a. 96

b. 100

c. 120

d. none of the given

257. A datagram cannot be larger than _____ of a network over which it is sent.

a. MTU

b. Size

c. IP header

d. None of the given

258._____of TCP/IP Protocol suit definers the basic Characteristic of network Hardware.

Physical Layer

Physical Layer

The Physical Layer defines the characteristics of the hardware

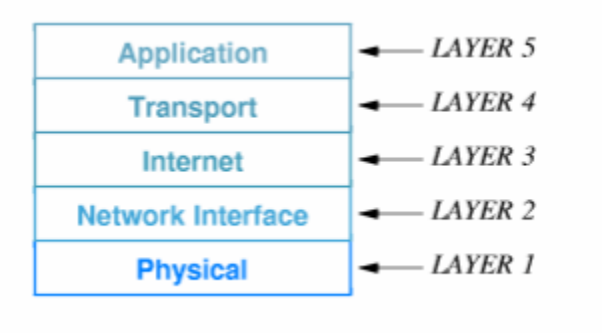
259.

_____protocol of TCP/IP Layening model specify how organize data into frame and how a computer transmits frame over a Network.

Network Interface Layer

LAYER 2:

Specifies how to organize data in frames.



260.

- **TCP/IP define the term _____ to refer any computer system that command to a network and runs applications for user.**
  Host Computer

HOST COMPUTERS, ROUTERS AND PROTOCOL LAYERS:

TCP/IP defines the term host computer to refer to any computer system that connects to an Internet and runs applications. A TCP/IP protocol makes it possible for any pair of hosts to communicate despite hardware differences.

261.

- **In the IP address _____ identifiers an individual's computer on the network.**
  Suffix

SUFFIX:

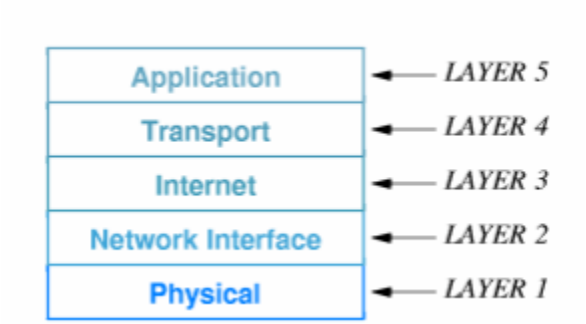
It identifies an individual computer on the network.

262.

- **___ of TCP/IP Protocol suit specifies the format of packets sent across internet as well as the mechanisms used to forward packets.**
  Internet Layer

LAYER 3:

- Specifies the format of packets sent across an Internet and forwards packets.



264.

- **The Protocol address of the next hop must be _____ to an equivalent hardware address before a packets can be sent.**

Translated

PROTOCOL ADDRESSES AND PACKET DELIVERY:

Protocol addresses are abstractions provided by software. Physical network hardware does not know how to locate a computer from it protocol address. The protocol address of the next hop must be translated to an equivalent hardware address before a packet can be sent.

265.

- **Internet Protocol (IP) address version 4 is comprised of _____ bits.**

32

32 bits

Internet Protocol Version 4 Addresses

With the broadly adopted **Internet Protocol Version 4**, every **IP address consists** of a **network** ID and a host ID. **IPv4** defines the **address** in a 32-**bit** format. The 32 **bits** are usually divided into four fields, each one containing 8 **bits**.

266.

- **Mapping between a protocol address and a hardware address is called_____.**

Address Resolution

ADDRESS RESOLUTION:

Mapping between a protocol address and a hardware address is called Address Resolution. A host or router uses address resolution when it needs to send a packet to another computer on the same physical network. A computer never resolves the address of a computer that attaches to a remote network.

267.

- **Inside a computer each address mask is stored as a_____ bit value.**

32

Inside a computer, each address mask is stored as a 32-bit value. When we enter a prefix and an address mask they use a modified form of dotted decimal addressing called CIDR addressing, which is known as CIDR Notation.

268

- **The IP class scheme does not divide the _____Address space into equal Size class and the classes do not contain the same number of networks.**

32-bit

The IP class scheme does not divide the 32-bit address space into equal size class and the classes do not contain the same number of networks.

269

- **A separate _____ Table is used for each Physical network layer.**

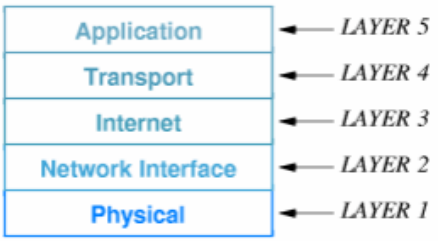
Address-Binding

Resolution requires data structure that contains information about address binding. A separate address-binding table is used for each physical network. The chief advantage of the table lookup approach is generality; a table can store the address bindings for an arbitrary set of computers.

270

- **_____ Protocol of TCP/IP layering model specify how to insure reliable transfer.**

Transport Layer



LAYER 4:

Specifies how to ensure reliable transfer.

271

- **Dotted decimal represents each octet in _____ and used a dot to separate octets.**

  Decimal

DOTTED DECIMAL NOTATION:

Dotted decimal notation is a syntactic form the IP software uses to express 32-bit binary values when interacting with humans. Dotted decimal represents each octet in decimal and uses a dot to separate octets. This is shown in the figure below.

272.

- **Dotted Decimal Notation is a syntactic form the IP software uses to express ____ binary values when interacting with humans.**

  32

DOTTED DECIMAL NOTATION:

Dotted decimal notation is a syntactic form the IP software uses to express 32-bit binary values when interacting with humans. Dotted decimal represents each octet in decimal and uses a dot to separate octets. This is shown in the figure below.

278.

- **As the internet grew the original Class full addressing scheme became a limitation. The IP address space was being executed because all networks had to choose one of_____.**

  Three

BSCS 4th SEMESTER

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(Leacture 37 to 45) MCQS ke lie Lazmi krna

1. How does a packet pass across an internet?

A source creates the packet and places the destination address in a packet header

The packet is sent to the nearest router

The router uses the destination address to select the next router on the path to the destination, and then transmits the packet.

The packet reaches the router that can deliver the packet to its final destination.

2. The IP Datagram

The addresses that appear in a datagram header differ from the addresses used in a frame header.

A datagram contains IP addresses while a frame contains hardware addresses.

The IP Datagram

A packet sent across a TCP/IP internet is called an IP datagram.

Each datagram consists of a header followed by data.

Source and destination addresses in the datagram header are IP addresses.

3. Forwarding An IP Datagram

Each router along the path receives the datagram, extracts the destination address from the header, and uses the destination address to determine a next hop to which the datagram should be sent.

Each router keeps information in a *routing table*.

4. Forwarding An IP Datagram

A routing table contains a set of entries that specify a destinationand the next hop used to reach that destination.

Forwarding An IP Datagram

Because each destination in a routing table corresponds to a network, the number of entries in a routing table is proportional to the number of networks in an internet.

5. IP Addresses & Routing Table

The Mask Field and Datagram Forwarding

The process of using a routing table to select a next hop for a given datagram is called *routing*or *forwarding.*

The *mask field* in a routing table entry is used to extract the network part of an address during lookup (chapter 18).

6. Destination and Next-Hop Addresses

The destination address in a datagram header always refers to the ultimate destination.

When a router forwards the datagram to another router, the address of the next hop does not appear in the datagram header.

Best-Effort Delivery

IP does not guarantee that it will handle the problems of:

Datagram duplication

Delayed or out-of-order delivery

Corruption of Data

Datagram Loss

Additional layers of protocol software are needed to handle each of these errors.

The IP Datagram Header

TIME TO LIVE: used to prevent a datagram from traveling forever around a path that contains a loop.

The sender initializes

the TIME TO LIVE field to a positive integer between 1 and 255.

Each router that handles the datagram decrements TIME TO LIVE by 1.

If the counter reaches zero, the datagram is discarded and an error message is sent back to the source.

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IMPORTANT TOPIC:

- Types of DELAY
- RELATIONSHIP BETWEEN DELAY AND THROUGHPUT:
- JITTER:
- INTERNET ARCHITECTURE:
- LAYERING AND TCP/IP PROTOCOLS: (MOST imp Fro MCQS)
- HOST COMPUTERS, ROUTERS AND PROTOCOL LAYERS: (FOR MCQS)
- THE IP ADDRESSING SCHEME:
- DOTTED DECIMAL NOTATION:
- DIVISION OF THE ADDRESS SPACE:
- CIDR NOTATION:
- ADDRESS RESOLUTION TECHNIQUES: (MOST IMPORTANT)
- ARP MESSAGE FORMAT **And Types**

- **LEACTURE 31 & 32 (MOST IMP) (FOR MCQs and Questions)**

- CHARACTERISTICS OF UDP:

- MESSAGE-ORIENTED INTERFACE:

- UDP four types of interaction Handouts 121

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PAST PAPERS:

- **1.Diffrent b/w Destination and source?**
- **2.In ARS the protocol adress independent of hadware adress which techinque use?**
- **3.A comapny ABC have LAN network contact to geather with bridge how can send message.**
- **5.Types of adress masks.**
- **4.Short note on MTU**
- **OSPF kidr use hota.**
- **Long question**
- **1.IPv6 mai sy 8 shorts aye thy 2 question thy same.**
- **Size of IPv6**
- **Feature of IPv6**
- **Multiple header**
- **What is dynamic routs.**
- **Can have routs are router?**
- **Whose largest routs?**
- **Whose smallest routs?**
- **LAN mai kis trha bridge aur switch ka use kiya jata.**

IF any query than correct it accordingly

THANK YOU