# *Business Data Networks and Security 11th edition Panko Test Bank*

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*Business Data Networks and Security, 11e* **(Panko)**
**Chapter 2 Network Standards**

1) Internet standards are published as _____.
A) RFCs
B) IETFs
C) TCP/IPs
D) Internet Protocols
Answer: A
Difficulty: Basic
Question: 1a
Objective: Explain how Internet standards are made.
AACSB: Applying Information Technology

2) IETF standards typically begin as simple protocols which _____.
A) enhances development speed
B) prevents longer-term development
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Difficult
Question: 1b
Objective: Explain how Internet standards are made.
AACSB: Applying Information Technology, Analytical Thinking

3) *Standards* mean the same thing as _____.
A) semantics
B) syntax
C) rules
D) protocols
Answer: D
Difficulty: Basic
Question: 2a
Objective: Provide definitions of network standards and protocols.
AACSB: Applying Information Technology

4) Network standards provide _____.
A) strobing
B) synchronization
C) interoperability
D) entanglement
Answer: C
Difficulty: Basic
Question: 2c
Objective: Provide definitions of network standards and protocols.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge


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5) Network standards _____.
A) decrease equipment prices
B) prevent the growth of new features
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Difficult
Question: 2d
Objective: Provide definitions of network standards and protocols.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

6) Which standards agency creates Internet standards?
A) OSI
B) TCP/IP
C) ITU-T
D) IETF
Answer: D
Difficulty: Basic
Question: 3a
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

7) Which of the following is a standards agency?
A) OSI
B) TCP/IP
C) ITU-T
D) all of the above
Answer: C
Difficulty: Basic
Question: 3b
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

8) Which standards agency is especially important for internet processes?
A) ITU-T
B) IETF
C) Both A and B are about equally important.
D) Neither A nor B are important.
Answer: B
Difficulty: Basic
Question: 3c
Objective: Explain standards agencies and architectures.
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9) Which standards agency is especially important for physical transmission processes?
A) ITU-T
B) IETF
C) Both A and B are about equally important.
D) Neither A nor B are important.
Answer: A
Difficulty: Basic
Question: 3d
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology, Application of Knowledge

10) Which standards agency is especially important for data link processes?
A) ISO and ITU-T
B) IETF
C) Both A and B are about equally important.
D) Neither A nor B are important.
Answer: A
Difficulty: Basic
Question: 3e
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology, Application of Knowledge

11) Which standards agency is especially important for transport processes?
A) ISO and ITU-T
B) IETF
C) Both A and B are about equally important.
D) Neither A nor B are important.
Answer: B
Difficulty: Basic
Question: 3f
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology, Application of Knowledge

12) Which standards agency is especially important for Internet supervisory processes?
A) ISO and ITU-T
B) IETF
C) Both A and B are about equally important.
D) Neither A nor B are important.
Answer: B
Difficulty: Difficult
Question: 3g
Objective: Explain standards agencies and architectures.
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13) Standards layers provide services directly to _____.
A) the next-higher layer
B) the next-lower layer
C) all layers
D) only themselves
Answer: A
Difficulty: Difficult
Question: 4b
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology

14) If you change a standard at one layer, you are not required to change standards at other layers.
Answer: TRUE
Difficulty: Basic
Question: 4c
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology

15) It is typically advantageous to change a standard if the layer _____ gets an upgraded standard.
A) above it
B) below it
C) at least two layers away
D) none of the above
Answer: B
Difficulty: Difficult
Question: 4d
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

16) A standards agency for OSI is _____.
A) ITU-T
B) IETF
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Basic
Question: 5a
Objective: Explain standards agencies and architectures.
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17) Which of the following is an architecture?
A) ISO
B) IETF
C) both A and B
D) neither A nor B
Answer: D
Difficulty: Basic
Question: 5b
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology

18) Which of the following is a standards agency for the Internet?
A) IETF
B) ISO
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Basic
Question: 5c
Objective: Explain standards agencies and architectures.
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19) From which standards architectures do organizations typically take their standards?
A) OSI
B) TCP/IP
C) both A and B
D) neither A nor B
Answer: C
Difficulty: Difficult
Question: 5d
Objective: Explain standards agencies and architectures.
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20) IETF standards are dominant in the OSI-TCP/IP layered standards architecture at the _____ layer.
A) data link
B) transport
C) both A and B
D) neither A nor B
Answer: B
Difficulty: Basic
Question: 5e
Objective: Explain standards agencies and architectures.
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21) ISO standards are dominant in the OSI-TCP/IP layered standards architecture at the _____ layer.
A) transport
B) Internet
C) both A and B
D) neither A nor B
Answer: D
Difficulty: Basic
Question: 5f
Objective: Explain standards agencies and architectures.
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22) Only applications from the IETF are likely to be able to run over TCP.
Answer: FALSE
Difficulty: Difficult
Question: 5g
Objective: Explain standards agencies and architectures.
AACSB: Applying Information Technology, Application of Knowledge

23) Which layer governs wires?
A) transport
B) physical
C) Internet
D) none of the above
Answer: B
Difficulty: Basic
Question: 6a
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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24) Which standards layer governs e-mail?
A) data link
B) transport
C) Internet
D) none of the above
Answer: D
Difficulty: Difficult
Question: 6b
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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25) Which standards layer governs the World Wide Web?
A) data link
B) transport
C) Internet
D) none of the Above
Answer: D
Difficulty: Difficult
Question: 6b
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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26) Which standards layer governs peer-to-peer file sharing?
A) data link
B) transport
C) Internet
D) none of the Above
Answer: D
Difficulty: Difficult
Question: 6b
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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27) Which standards layer governs multiuser word processing programs?
A) data link
B) transport
C) Internet
D) none of the Above
Answer: D
Difficulty: Difficult
Question: 6b
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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28) Which layer(s) governs transmission through a single network?
A) data link
B) physical
C) both A and B
D) neither A nor B
Answer: C
Difficulty: Basic
Question: 6c
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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29) Which layer(s) governs transmission through the Internet?
A) data link
B) physical
C) both A and B
D) neither A nor B
Answer: D
Difficulty: Basic
Question: 6d
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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30) Which layer processes application message fragmentation?
A) application
B) transport
C) Internet
D) all of the above
Answer: B
Difficulty: Difficult
Question: 6e
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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31) The application layer processes application message fragmentation.
Answer: FALSE
Difficulty: Difficult
Question: 6e
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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32) At what layer will you find standards for routers?
A) transport
B) Internet
C) both A and B
D) neither A nor B
Answer: B
Difficulty: Difficult
Question: 7a
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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33) At what layer will you find standards for access points?
A) physical
B) data link
C) both A and B
D) neither A nor B
Answer: C
Difficulty: Basic
Question: 7b
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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34) At what layer will you find standards for packets?
A) application
B) data link
C) transport
D) Internet
Answer: D
Difficulty: Basic
Question: 7c
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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35) At what layer will you find standards for switches?
A) application
B) data link
C) transport
D) Internet
Answer: B
Difficulty: Basic
Question: 7d
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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36) At what layer will you find standards for frames?
A) application
B) data link
C) transport
D) Internet
Answer: B
Difficulty: Basic
Question: 7e
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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37) At what layer will you find standards for IP addresses?
A) application
B) data link
C) transport
D) Internet
Answer: D
Difficulty: Basic
Question: 7f
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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38) At what layer will you find standards for routes?
A) application
B) data link
C) transport
D) Internet
Answer: D
Difficulty: Basic
Question: 7g
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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39) At what layer will you find standards for EUI-48 addresses?
A) application
B) data link
C) transport
D) Internet
Answer: B
Difficulty: Basic
Question: 7h
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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40) If two hosts are connected by five networks, how many packets will there be when one host sends a packet to the other host?
A) 1
B) 2
C) 5
D) 7
Answer: A
Difficulty: Difficult
Question: 8a
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

41) If two hosts are connected by five networks, how many frames will there be when one host sends a packet to the other host?
A) 1
B) 2
C) 5
D) 6
Answer: C
Difficulty: Difficult
Question: 8b
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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42) If two hosts are connected by five networks, how many routers will there be when one host sends a packet to the other host?
A) 1
B) 2
C) 4
D) 5
Answer: C
Difficulty: Difficult
Question: 8c
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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43) If two hosts are connected by five point-to-point networks, how physical links will there be when one host sends a packet to the other host?
A) 1
B) 2
C) 5
D) 6
Answer: D
Difficulty: Difficult
Question: 8d
Objective: Explain the purpose of each standards layer in the TCP/IP-OSI standards architecture.
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44) In an HTTP, which one (browser or Webserver application program) transmits message first?
A) browser
B) Webserver application program
C) They transmit simultaneously.
D) It depends on the situation.
Answer: A
Difficulty: Basic
Question: 9a
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Application of Knowledge

45) In HTTP, which program may initiate communication?
A) browser
B) Webserver program
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Difficult
Question: 9a
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Application of Knowledge

46) HTTP is a connectionless protocol.
Answer: TRUE
Difficulty: Basic
Question: 9b
Objective: Explain message ordering in HTTP and TCP.
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47) HTTP is a reliable protocol.
Answer: FALSE
Difficulty: Basic
Question: 9c
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology

48) HTTP is _____.
A) connection-oriented.
B) reliable
C) both A and B
D) neither A nor B
Answer: D
Difficulty: Basic
Question: 9c
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology

49) TCP messages are called _____.
A) frames
B) packets
C) segments
D) fragments
Answer: C
Difficulty: Basic
Question: 10a
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology

50) Host P transmits a SYN segment to Host Q. If host Q is willing to open the connection, it will transmit a(n) _____ segment.
A) ACK
B) SYN
C) SYN/ACK
D) none of the above
Answer: C
Difficulty: Basic
Question: 10b
Objective: Explain message ordering in HTTP and TCP.
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51) If a destination host does not receive a segment, it will _____.
A) transmit an ACK segment
B) transmit a NAC segment
C) transmit an RSND segment
D) none of the above
Answer: D
Difficulty: Basic
Question: 10c
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

52) If a destination host receives a TCP segment with an error, it will transmit _____.
A) an ACK segment
B) an NAC segment
C) an RSND segment
D) nothing
Answer: D
Difficulty: Basic
Question: 10c
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

53) TCP control segments normally have _____.
A) headers
B) headers and data fields
C) headers, data fields, and trailers
D) none of the above
Answer: A
Difficulty: Difficult
Question: 10d
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

54) TCP is a connection-oriented protocol.
Answer: TRUE
Difficulty: Basic
Question: 11a
Objective: Explain message ordering in HTTP and TCP.
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55) During a connection opening, how many TCP segments will the side that initiates the connection send?
A) 1
B) 2
C) 3
D) 4
Answer: B
Difficulty: Difficult
Question: 11c
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

56) If a destination host receives a correct segment, it will transmit _____.
A) an ACK segment
B) an NAC segment
C) an RSND segment
D) nothing
Answer: A
Difficulty: Basic
Question: 12a
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

57) If a destination host does not receive a segment, it will _____.
A) transmit an ACK segment
B) transmit an NAC segment
C) transmit an RSND segment
D) none of the above
Answer: D
Difficulty: Basic
Question: 12b
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

58) If a destination host receives an incorrect segment, it will _____.
A) transmit an ACK segment
B) transmit an NAC segment
C) transmit an RSND segment
D) none of the above
Answer: D
Difficulty: Basic
Question: 12c
Objective: Explain message ordering in HTTP and TCP.
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59) A sending host will retransmit a TCP segment if it _____.
A) receives an ACK segment
B) receives an NAC segment
C) receives an RPT segment
D) none of the above
Answer: D
Difficulty: Basic
Question: 12d
Objective: Explain message ordering in HTTP and TCP.
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60) In a four-step close, which side transmits a FIN segment?
A) the side that initiates the close
B) the side that does not initiate the close
C) both A and B
D) neither A nor B
Answer: C
Difficulty: Difficult
Question: 13a
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Application of Knowledge

61) After the side wishing to close a TCP connection sends a FIN segment, it will _____.
A) not send any more segments
B) only send ACK segments
C) only send FIN segments
D) none of the above
Answer: B
Difficulty: Difficult
Question: 13b
Objective: Explain message ordering in HTTP and TCP.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

62) Which of the following is NOT one of the three general parts of messages?
A) address field
B) header
C) data field
D) trailer
Answer: A
Difficulty: Difficult
Question: 14a
Objective: Explain message syntax in common network standards.
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63) The _____ contains the content being delivered by a message.
A) address field
B) header
C) data field
D) trailer
Answer: C
Difficulty: Basic
Question: 14b
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

64) A header is defined as everything that comes before the data field.
Answer: TRUE
Difficulty: Basic
Question: 14c
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

65) A message always has a _____.
A) header
B) data field
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Difficult
Question: 14c
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

66) There is always a data field in a message.
Answer: FALSE
Difficulty: Basic
Question: 14d
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

67) A trailer is defined as everything that comes after the data field.
Answer: TRUE
Difficulty: Basic
Question: 14e
Objective: Explain message syntax in common network standards.
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68) Which part of a message is included less frequently when compared to the other two parts?
A) header
B) data field
C) trailer
D) All of the above are equally included in messages.
Answer: C
Difficulty: Basic
Question: 14f
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

69) "Header" means the same thing as "Header Field."
Answer: FALSE
Difficulty: Difficult
Question: 14g
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

70) In IP, the first bit in the second row is _____.
A) 0
B) 31
C) 32
D) none of the above.
Answer: C
Difficulty: Basic
Question: 15a
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking

71) The internet process checks for errors.
Answer: TRUE
Difficulty: Difficult
Question: 15c
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

72) If the destination internet process detects an error, it _____.
A) discards the packet
B) sends back a segment notifying the sender
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Difficult
Question: 15d
Objective: Explain message syntax in common network standards.
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73) IP is _____.
A) reliable
B) unreliable
C) semi-reliable
D) unreliable or reliable depending on the situation
Answer: B
Difficulty: Basic
Question: 15f
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

74) Which of the following is a connectionless protocol?
A) IP
B) TCP
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Difficult
Question: 15g
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Application of Knowledge

75) TCP has single-bit fields in its headers; these single-bit fields are called _____ fields.
A) port
B) flag
C) ACK
D) binary
Answer: B
Difficulty: Basic
Question: 16a
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

76) If someone says that a 1-bit flag is set, it is given the value _____.
A) 0
B) 1
C) either 0 or 1
D) neither 0 or 1
Answer: B
Difficulty: Basic
Question: 16b
Objective: Explain message syntax in common network standards.
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77) SYN segments have _____.
A) headers
B) headers and data fields
C) headers, data fields, and trailers
D) data fields only
Answer: A
Difficulty: Difficult
Question: 16f
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking

78) A TCP segment can both send information and acknowledge an earlier message sent to its host.
Answer: TRUE
Difficulty: Basic
Question: 16g
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

79) The UDP header has _____ fields.
A) 4
B) 8
C) 16
D) 32
Answer: A
Difficulty: Difficult
Question: 17a
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Application of Knowledge

80) UDP _____.
A) is unreliable
B) has a checksum field
C) both A and B
D) neither A nor B
Answer: C
Difficulty: Difficult
Question: 17d
Objective: Explain message syntax in common network standards.
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81) On a server, well-known port numbers indicate _____.
A) applications
B) connections with client computers
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Difficult
Question: 18a
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Application of Knowledge

82) For every conversation, a client randomly generates an ephemeral port number for _____.
A) applications
B) conversations
C) the server
D) none of the above
Answer: B
Difficulty: Difficult
Question: 18b
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Application of Knowledge

83) The range of port 1024 to port 4999 is the usual range for _____ port numbers.
A) well-known
B) ephemeral
C) both A and B
D) neither A nor B
Answer: B
Difficulty: Difficult
Question: 18c
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

84) 2500 is in the range for _____ port numbers.
A) well-known
B) ephemeral
C) both A and B
D) neither A nor B
Answer: B
Difficulty: Difficult
Question: 18d
Objective: Explain message syntax in common network standards.
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85) The source socket is 60.171.18.22:2707. The source is a(n) _____.
A) client
B) server
C) well-known server
D) ephemeral server
Answer: A
Difficulty: Difficult
Question: 19a
Objective: Explain message syntax in common network standards.
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86) The destination socket is 60.171.18.22:161. The destination host is a(n) _____.
A) client
B) server
C) well-known server
D) ephemeral server
Answer: B
Difficulty: Difficult
Question: 19a
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

87) Which of the following is a socket?
A) 80
B) 21
C) both A and B
D) neither A nor B
Answer: D
Difficulty: Difficult
Question: 19a
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

88) "Octet" is the same as _____.
A) "bit"
B) "byte"
C) either A or B, depending on the context
D) neither A nor B
Answer: B
Difficulty: Basic
Question: 20a
Objective: Explain message syntax in common network standards.
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89) Ethernet syntax is displayed 32 bits on a line.
Answer: FALSE
Difficulty: Difficult
Question: 20a
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Application of Knowledge

90) In the Ethernet II frame, the IP packet is carried in the _____ field.
A) source address
B) destination address
C) data
D) EtherType
Answer: C
Difficulty: Basic
Question: 20b
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

91) The IP standard calls for IP packets to be carried in the Ethernet II version of the Ethernet frame.
Answer: TRUE
Difficulty: Basic
Question: 20c
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology

92) To know what kind of message is in the Ethernet II data field, the receiver must look in the _____ field.
A) source address
B) destination address
C) data
D) EtherType
Answer: D
Difficulty: Basic
Question: 20d
Objective: Explain message syntax in common network standards.
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93) Ethernet has a Frame Check Sequence Field to check for errors. Ethernet is _____.
A) reliable
B) unreliable
C) both A and B
D) neither A nor B
Answer: B
Difficulty: Difficult
Question: 20e
Objective: Explain message syntax in common network standards.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

94) Converting application messages into bits is called _____.
A) encapsulation
B) encryption
C) encoding
D) exchange
Answer: C
Difficulty: Difficult
Question: 21a
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology

95) At what layer is encoding done?
A) application
B) transport
C) Internet
D) none of the above
Answer: A
Difficulty: Difficult
Question: 21b
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

96) How many bytes will it take to transmit "Brain Dead" without the quotation marks?
A) 2
B) 3
C) 9
D) none of the above
Answer: D
Difficulty: Difficult
Question: 22b
Objective: Explain how application programs encode data into binary representation.
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97) Transmitting "Oh, My!" without the quotes in ASCII requires _____ octets.
A) 2
B) 4
C) 6
D) 7
Answer: D
Difficulty: Difficult
Question: 22c
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

98) Which of the following is an integer?
A) 4,307
B) 45.7
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Basic
Question: 23a
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Application of Knowledge

99) Which of the following is an integer?
A) 5,280
B) 98.6
C) both A and B
D) neither A nor B
Answer: A
Difficulty: Basic
Question: 23b
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Application of Knowledge

100) Convert decimal 8 to binary.
A) 100
B) 1000
C) 10000
D) 111
Answer: B
Difficulty: Difficult
Question: 23e
Objective: Explain how application programs encode data into binary representation.
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101) Convert a decimal number 15 to the binary number.
A) It is a binary number.
B) 1100
C) 1101
D) 1111
Answer: D
Difficulty: Difficult
Question: 23g
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

102) Convert the binary number 100 to decimal.
A) It is in decimal.
B) 2
C) 4
D) 8
Answer: C
Difficulty: Difficult
Question: 23k
Objective: Explain how application programs encode data into binary representation.
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103) In decimal, the binary number 110 is _____.
A) 15
B) 16
C) 17
D) none of the above
Answer: D
Difficulty: Difficult
Question: 23k
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

104) A 5-bit field can represent _____ alternatives or different combinations.
A) 8
B) 16
C) 32
D) 64
Answer: C
Difficulty: Difficult
Question: 24a
Objective: Explain how application programs encode data into binary representation.
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105) If you add one bit to an alternatives field, you can have _____.
A) one more alternative
B) two more alternatives
C) twice as many alternatives
D) none of the above
Answer: C
Difficulty: Basic
Question: 24b
Objective: Explain how application programs encode data into binary representation.
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106) How many alternatives can you represent with a 10-bit field?
A) 256
B) 512
C) 1,024
D) none of the above
Answer: C
Difficulty: Difficult
Question: 24c
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

107) To represent 65 alternatives, your alternatives field would have to be at least _____ bits long.
A) 5
B) 6
C) 7
D) 8
Answer: C
Difficulty: Difficult
Question: 24d
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

108) The five senses can be represented with a _____-bit field.
A) 2
B) 3
C) 4
D) 5
Answer: B
Difficulty: Difficult
Question: 24e
Objective: Explain how application programs encode data into binary representation.
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109) In TCP, port number fields are 16 bits long. How many possible port numbers are there?
A) 16
B) 1,024
C) 16,384
D) 64,536
Answer: D
Difficulty: Basic
Question: 24a
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

110) ASCII has a 7-bit code. How many keyboard characters can it represent?
A) 128
B) 256
C) 512
D) 1,024
Answer: A
Difficulty: Difficult
Question: 24e
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Analytical Thinking, Application of Knowledge

111) Which of the following protocols is reliable?
A) IP
B) TCP
C) both A and B
D) neither A nor B
Answer: B
Difficulty: Basic
Question: 25a
Objective: Explain how application programs encode data into binary representation.
AACSB: Applying Information Technology, Application of Knowledge

112) Not making all protocols reliable _____.
A) reduces cost
B) is very dangerous
C) is widely viewed as having been a mistake
D) none of the above
Answer: A
Difficulty: Difficult
Question: 25b
Objective: Explain how application programs encode data into binary representation.
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