

Version: 12.0

Question: 1

Which two networking devices operate at Layer 1 of the OSI model? (Choose two.)

- A. Repeater
- B. Bridge
- C. Switch
- D. Router
- E. Hub

Answer: A,E

Explanation:

It defines the electrical and physical specifications of the data connection. It defines the relationship between a device and a physical transmission medium (e.g. a copper or fiber optical cable). This includes the layout of pins, voltages, line impedance, cable specifications, signal timing, hubs, repeaters, network adapters, host bus adapters (HBA used in storage area networks) and more."

http://en.wikipedia.org/wiki/OSI_model

Question: 2

Which two networking devices forward data based on destination MAC address? (Choose two.)

- A. Repeater
- B. Bridge
- C. Switch
- D. Router
- E. Hub

Answer: B,C

Explanation:

http://www.cisco.com/en/US/prod/collateral/switches/ps9441/ps9670/white_paper_c11-465436.html

Question: 3

Which two network topologies are the most popular in switching? (Choose two.)

- A. Bus
- B. Token passing bus
- C. Star
- D. Extended star

E. Ring

Answer: C,D

Explanation:

http://en.wikipedia.org/wiki/Network_topology

Question: 4

Which device would you select to partition a network into VLANs?

- A. repeater
- B. bridge
- C. switch
- D. router
- E. hub

Answer: C

Question: 5

At which layer of the OSI model does TCP operate?

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Answer: D

Explanation:

http://en.wikipedia.org/wiki/OSI_model

Question: 6

Which two layers of the OSI model relate to the transmission of bits over the wire and packet forwarding based on destination IP address? (Choose two.)

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5

Answer: A,C

Explanation:
Bits - 1 layer
Packets - 3 layer
http://en.wikipedia.org/wiki/OSI_model

Question: 7

Which layer of the OSI model is associated with the reliable transmission of datagrams?

- A. Datagram
- B. Routing
- C. Network
- D. Data link
- E. Transport
- F. Transmission
- G. Session

Answer: E

Explanation:
http://en.wikipedia.org/wiki/Transport_layer

Question: 8

Which three terms are used to describe data at Layers 1, 2, and 4 of the OSI model? (Choose three.)

- A. PDUs
- B. Bits
- C. Sequences
- D. Segments
- E. Packets
- F. Frames

Answer: B,D,F

Explanation:
Bits -1 layer
Frames - 2 layer
Segments - 4 layer
http://en.wikipedia.org/wiki/OSI_model

Question: 9

Which two layers of the OSI model are combined in the Internet protocol suite application layer?

(Choose two.)

- A. 2
- B. 3
- C. 4
- D. 5
- E. 6
- F. 7

Answer: D,E

Explanation:

http://en.wikipedia.org/wiki/Internet_protocol_suite

Question: 10

Which two layers of the OSI model are combined in the Internet protocol suite network access layer?
(Choose two.)

- A. 1
- B. 2
- C. 3
- D. 4
- E. 5
- F. 6
- G. 7

Answer: A,B

Explanation:

http://en.wikipedia.org/wiki/Internet_protocol_suite

Question: 11

In an IEEE 802.3 Ethernet frame, what is the significance of the DSAP field?

- A. The DSAP field specifies the TCP or UDP port that is associated with the transport protocol.
- B. The DSAP field is only used on United States Department of Defense networks to indicate the information classification level.
- C. The DSAP field is only used in Ethernet II frames.
- D. The DSAP field indicates the network layer protocol.

Answer: D

Question: 12

Which field in an Ethernet II frame performs the same function as the DSAP field in an 802.3 Ethernet frame?

- A. Start of frame
- B. EtherType
- C. Frame check sequence
- D. Subnetwork Access Protocol
- E. Logical Link Control

Answer: B

Question: 13

What are two features of a bridge? (Choose two.)

- A. Reliable transmission
- B. Operate at OSI Layer 2
- C. Operate at OSI Layer 3
- D. Create multiple broadcast domains
- E. Create multiple collision domains
- F. Flood input packets to all ports
- G. Drop IP packets with invalid destination ports

Answer: B,E

Explanation:

"- a bridge is a two interfaces device that creates 2 collision domains, since it forwards the traffic it receives from one interface only to the interface where the destination layer 2 device (based on his mac address) is connected to. A bridge is considered as an "intelligent hub" since it reads the destination mac address in order to forward the traffic only to the interface where it is connected"

<https://learningnetwork.cisco.com/thread/1734>

Question: 14

What are three reasons that switches supersede bridges? (Choose three.)

- A. Smaller frame buffers decrease latency.
- B. Forward, filter, or flood frames.
- C. Multiple simultaneous communications between ports.
- D. Larger inspection engine allows for higher throughput.
- E. Switches have many ports.

Answer: B,C,E

Explanation:

http://docwiki.cisco.com/wiki/Bridging_and_Switching_Basics

Question: 15

What action does a switch take if the destination MAC address is unknown?

- A. Discard frame
- B. Send ICMP unreachable message to source
- C. Flood packet on all ports
- D. Compare destination IP address against an ACL to determine if it is permitted
- E. Send gratuitous ARP on all ports and wait for reply before forwarding

Answer: C

Explanation:

"What happens though when the switch receives a frame with a destination MAC address that is not included in the table? In that case the switch will just broadcast/flood the frame with the unknown destination address to all of its ports (apart from the port where the frame came from). This process is called unknown unicast flooding. "

<http://telconotes.wordpress.com/2013/03/09/how-a-switch-works/>