How long is an IPv6 address?

A. 32 bits

B. 128 bytes

C. 64 bits

D. 128 bits

Answer & Explanation

Answer: Option **D**

Explanation:

An IPv6 address is 128 bits long.

---

2. What flavor of Network Address Translation can be used to have one IP address allow many users to connect to the global Internet?

A.	NAT	**B.**	Static
C.	Dynamic	**D.**	PAT

Answer & Explanation

Answer: Option **D**

Explanation:

Port Address Translation (PAT) allows a one-to-many approach to network address translation.

---

3. What are the two main types of access control lists (ACLs)?

1. Standard
2. IEEE
3. Extended
4. Specialized

A. 1 and 3

B. 2 and 4

C. 3 and 4

D. 1 and 2

Answer: Option **A**

Explanation:

Standard and extended access control lists (ACLs) are used to configure security on a router.

---

4. What command is used to create a backup configuration?

    A. copy running backup

    B. copy running-config startup-config

    C. configmem

    D. wrmem

Answer: Option **B**

Explanation:

The command to back up the configuration on a router is copy running-config startup-config.

---

5. You have 10 users plugged into a hub running 10Mbps half-duplex. There is a server connected to the switch running 10Mbps half-duplex as well. How much bandwidth does each host have to the server?

    A. 100 kbps

    B. 1 Mbps

    C. 2 Mbps

    D. 10 Mbps

Answer: Option **D**

Explanation:

Each device has 10 Mbps to the server.

Which WLAN IEEE specification allows up to 54Mbps at 2.4GHz?

A. A

B. B

C. G

D. N

Answer & Explanation

Answer: Option **C**

Explanation:

IEEE 802.11B is 2.4GHz, but with a maximum of only 11Mbps. IEEE 802.11G is in the 2.4GHz range, with a top speed of 54Mbps.

---

7. Which of the following is the valid host range for the subnet on which the IP address 192.168.168.188 255.255.255.192 resides?

A. 192.168.168.129-190

B. 192.168.168.129-191

C. 192.168.168.128-190

D. 192.168.168.128-192

Answer & Explanation

Answer: Option **A**

Explanation:

256 - 192 = 64. 64 + 64 = 128. 128 + 64 = 192. The subnet is 128, the broadcast address is 191, and the valid host range is the numbers in between, or 129-190.

---

8. To back up an IOS, what command will you use?

A. backup IOS disk

B. copy iostftp

C. copy tftp flash

D. copy flash tftp

---

9. What protocol does PPP use to identify the Network layer protocol?

A. NCP

B. ISDN

C. HDLC

D. LCP

Answer & Explanation

Answer: Option **A**

Explanation:

Network Control Protocol is used to help identify the Network layer protocol used in the packet.

---

10. Which of the following commands will allow you to set your Telnet password on a Cisco router?

    A. line telnet 0 4

    B. line aux 0 4

    C. line vty 0 4

    D. line con 0

Answer & Explanation

Answer: Option **C**

Explanation:

The command line vty 0 4 places you in a prompt that will allow you to set or change your Telnet password.

11. Which protocol does DHCP use at the Transport layer?

    A. IP   **B.** TCP

    C. UDP   **D.** ARP

Answer & Explanation

Answer: Option **C**

Explanation:

User Datagram Protocol is a connection network service at the Transport layer, and DHCP uses this connectionless service.

---

12. Which command is used to determine if an IP access list is enabled on a particular interface?

    A. show access-lists

    B. show interface

    C. show ip interface

    D. show interface access-lists

Answer & Explanation

Answer: Option **C**

Explanation:

The show ip interface command will show you if any outbound or inbound interfaces have an access list set.

---

13. Where is a hub specified in the OSI model?

    A. Session layer

    B. Physical layer

    C. Data Link layer

    D. Application layer

Answer & Explanation

Answer: Option **B**

Explanation:

Hubs regenerate electrical signals, which are specified at the Physical layer.

---

14. What does the passive command provide to dynamic routing protocols?

    A. Stops an interface from sending or receiving periodic dynamic updates.

    B. Stops an interface from sending periodic dynamic updates but not from receiving updates.

    C. Stops the router from receiving any dynamic updates.

    D. Stops the router from sending any dynamic updates.

Answer & Explanation

Answer: Option **B**

Explanation:

The passive command, short for passive-interface, stops regular updates from being sent out an interface. However, the interface can still receive updates.

---

15. Which protocol is used to send a destination network unknown message back to originating hosts?

    A. TCP   **B.** ARP

C. ICMP

D. BootP

Answer & Explanation

Answer: Option **C**

Explanation:

ICMP is the protocol at the Network layer that is used to send messages back to an originating router.

16. How often are BPDUs sent from a layer 2 device?

    A. Never

    B. Every 2 seconds

    C. Every 10 minutes

    D. Every 30 seconds

Answer & Explanation

Answer: Option **B**

Explanation:

Every 2 seconds, BPDUs are sent out from all active bridge ports by default.

---

17. How many broadcast domains are created when you segment a network with a 12-port switch?

    A. 1

    B. 2

    C. 5

    D. 12

Answer & Explanation

Answer: Option **A**

Explanation:

By default, switches break up collision domains but are one large broadcast domain.

---

18. What does the command router A (config) # line cons 0 allow you to perform next?

    A. Set the Telnet password.

    B. Shut down the router.

    C. Set your console password.

D. Disable console connections.

Answer & Explanation

Answer: Option **C**

Explanation:

The command line console 0 places you at a prompt where you can then set your console user-mode password.

---

19. Which router command allows you to view the entire contents of all access lists?

    A. show all access-lists

    B. show access-lists

    C. show ip interface

    D. show interface

Answer & Explanation

Answer: Option **B**

Explanation:

To see the contents of all access lists, use the show access-lists command.

---

20. Which class of IP address has the most host addresses available by default?

    A. A

    B. B

    C. C

    D. A and B

Answer & Explanation

Answer: Option **A**

Explanation:

Class A addressing provides 24 bits for host addressing.