True / False Questions

1. An ICMP Echo Request and Reply can be used to determine if we have connectivity between a client and server at the application layer.**(FALSE)**
2. Each host computer or router can be assigned only to one Internet(IP) address.**(FALSE)**
3. Only the owner of a given IP address should respond to an ARP request. .**(TRUE)**
4. The address 156.26.255.255 is a valid IP address for a host.**(FALSE)**
5. The ARP is used to map the MAC address to an IP address.**(TRUE)**
6. The purpose of the ICMP protocol is to make IP more reliable.**( FALSE)**

Multiple Choice Questions

1. Suppose a router has the routing table as shown below. The router can deliver packets directly over interfaces eth0 and eth 1, or ıt can forward pachets to other routers in the table. Describe what the router does with a packet addressed to 156.26.1.30

|  |  |  |
| --- | --- | --- |
| Destination | Netmask | Gateway |
| 156.26.10.0 | 255.255.255.192 | Eth0 |
| 156.26.10.128 | 255.255.255.192 | Eth1 |
| 156.26.0.0 | 255.255.0.0 | 156.26.10.1 |
| 0.0.0.0 | 0.0.0.0 | 156.10.1.30 |

1. Delivers packets directly through eth0
2. Delivers packets directly through eth1
3. Forwards to the router at 156.26.10.1
4. Forwards to the router at 156.26.10.30
5. Which of the following is true?
6. Ping sends echo packets defined in the ICMP protocol
7. You can ping a host using its MAC address with the ICMP protocol
8. Reply to ping request means remote hosts transport layer is up and running
9. Ping can only be used between directly neighboring hosts
10. Transport layer connection release algorithm
11. Uses asymmetric release semantics
12. Uses symmetric release semantics
13. Does not work with possible packet losses
14. Uses timeouts to deal with possible packet loss
15. Which of the following tables are required at a router?
16. MAC table
17. ARP table
18. DNS table
19. Routing table
20. UDP based application protocol often provides
21. Some reliability
22. Support for stream delivery
23. Support for virtual circuits
24. Session encryption
25. A file of size 15000 bytes is to be transferred
26. 100
27. The IPv4 Class D network range is reserved for
28. Broadcast
29. Multicast
30. Anycast
31. None of the above

15.What byte order is used in the Internet protocols?

1. Forward-endian
2. Reverse-endian
3. Little-endian
4. Big-endian

16.It a datagram that is 1420 bytes long arrives for transmission across a network that …… MTU of 532 bytes, how long will each of the fragements be?

1. 512 bytes, 512 bytes, and 375 bytes
2. 532 bytes, 532 bytes, and 376 bytes
3. 532 bytes, 532 bytes, and 396 bytes
4. None of the above

17.Which of the addresses below is a multicast address?

1. 224.5.6.7
2. 10.11.12.14
3. 0.0.0.0
4. 127.0.0.3

18. 34672

19.What is the header size of a standard IPv6 packet?

1. 60 bytes
2. 48 bytes
3. 40 bytes
4. 20 bytes