Name:	**Prof. Chin ~ ConsciousVibes.com**	**Quiz**	4	Chapters	6, 7, 8, 9

1. On a Cisco router, which mode is limited to basic monitoring commands?
    a. Privileged EXEC mode   c. User EXEC mode   e. Setup mode
    b. Global configuration mode   d. Specific configuration modes

2. Which mode enables you to view and change the configuration of a Cisco router?

    a. Privileged EXEC mode   c. Extended Setup mode
    b. Basic Management mode   d. User EXEC mode

3. On a Cisco router, which mode allows you to issue commands that affect the entire system?
    a. User EXEC mode   c. Global configuration mode   e. Setup mode
    b. Privileged EXEC mode   d. Specific configuration modes

4. Which of the following prompts indicates that the router is currently in privileged mode?

    a. Router(config)#   c. Router#
    b. Router >   d. Router(config-if)

5. Which command will show you whether a DTE or a DCE cable is plugged into serial 0/0 on your router's WAN port?

    a. show interface serial 0/0   c. show processes s0/0   e. show interfaces s0/0
    b. show serial 0/0 controllers   d. show controllers s0/0

6. Which Cisco IOS command is used to enable an interface on a router?

    a. `Interface turn on`   c. `No shutdown`   d. `No shut-down`
    b. `Interface turn-on`   `interface`

7. The output of the `show running-config` command comes from _____.

    a. NVRAM   c. Firmware
    b. Flash   d. RAM

8. Which of the following Cisco IOS commands sets the privileged mode password to Cisco and encrypts the password?

    a. enable password Cisco   c. enable secret cisco
    b. enable secret password Cisco d. enable secret Cisco

9. Which Cisco IOS command do you type to save the configuration stored in RAM to NVRAM?

    a. Router(config)# copy current to starting   c. Router(config)# copy running-config startup-config
    b. Router# copy starting to running   d. Router# copy running-config startup-config

10. What is the problem with an interface if you type show interface g0/1 and receive the following message? `Gigabit 0/1 is administratively down, line protocol is down`

    a. The keepalives are different times.   c. The administrator has the interface shut down.
    b. The administrator is pinging from the interface.   d. No cable is attached.

11. True or False: When a router first powers up it will look for and load a valid configuration file from *flash memory*.

12. You are troubleshooting a connectivity problem in your corporate network and want to isolate the problem. You suspect that a router on the route to an unreachable network is at fault. Which IOS user exec command should you issue?

    a. ping   c. show ip route   e. show cdp neighbors
    b. traceroute   d. show interface

13. _____ is when all routers "agree" on what the network topology should look like.

14. What are the minimum four (4) attributes a routing table should have? (1 on each line)

15. What are the two categories of routing protocols that **interior gateway protocols** can be divided into?

16. Which two of the following are true regarding the distance-vector and link-state routing protocols? (Choose only two.)

    a. Link state sends its complete routing table out of all active interfaces at periodic time intervals.
    b. Distance vector sends its complete routing table out of all active interfaces at periodic time intervals.
    c. Link state sends updates containing the state of its own links to all routers in the internetwork.
    d. Distance vector sends updates containing the state of its own links to all routers in the internetwork.

17. If the sender is a host and wants to send a packet to another host on the **same network**, the **logical** address that must be mapped to a **physical** address is _____.

    a. the destination IP address in the datagram header   d. the destination MAC address found in the routing
    b. the IP address of the router found in the routing table   table
    c. the MAC address of the sender

18. If the sender is a host and wants to send a packet to another host on **another network**, the **logical** address that must be mapped to a **physical** address is _____.

    a. the destination IP address in the datagram header   c. the IP address of the router found in the host's routing
    b. the destination physical address found in the routing   table
       table   d. the port address of the destination host

19. The sender is a router that has received a datagram destined for a host on another network. The logical address that must be mapped to a physical address is _____.

    a. the destination IP address in the datagram header
    b. the destination physical address found in the routing table
    c. the IP address of the gateway router found in the routing table
    d. the port address of the destination host

20. The sender is a router that has received a datagram destined for a host on the **same network**. The logical address that must be mapped to a physical address is _____.

    a. the IP address of the router found in the routing table   c. the port address of the destination host
    b. the destination physical address found in the routing   d. the destination IP address in the datagram header
       table

21. An _____ is a collection of networks under a common administrative domain. (Specify the complete name, not the acronym.)

22. In computer networking, _____ route advertisement is a method of preventing routing loops in distance-vector routing protocols by prohibiting a router from advertising a route back onto the interface from which that route was learned.

23. Routing [**within**] an autonomous system is referred to as _____ routing.

24. Routing [**between**] autonomous systems is referred to as _____ routing.

25. The idea of IP address aggregation was designed to alleviate the increase in routing table entries when using _____.

    a. classful addressing   c. Physial addressing
    b. classless addressing   d. Packet filter addressing

26. _____ delivery of a packet occurs when the source and destination of the packet are located on the same physical network or when the delivery is between the last router and the destination host.

27. _____ delivery of a packet occurs when the destination host is not on the same network as the sending host.

28. Instead of having an entry for every destination host connected on the same physical network, a router can be configured to use the _____ method forwarding technique to make the size of its routing table manageable.

29. The _____ is a network protocol that ensures a loop-free topology for any bridged Ethernet local area network. The basic function of this protocol is to prevent bridge loops and the broadcast radiation that results from them. It also allows a network design to include spare (redundant) links to provide automatic backup paths if an active link fails, without the danger of bridge loops, or the need for manual enabling/disabling of these backup links. (**Specify the complete name, not the acronym.**)

30. When a packet is routed across a network, the destination _____ in the packet changes at every hop while the destination _____ does not.

    a. MAC address, IP address   c. Port number, IP address
    b. IP address, MAC address   d. IP address, port number

31. A _____ routing protocol requires that a router [inform its neighbors] of topology changes periodically and, in some cases, when a change is detected in the topology of a network.

32. _____ routing protocols require a router to [inform all the nodes] in a network of topology changes.

33. The Routing Information Protocol (RIP) is an interior gateway routing protocol based on _____ routing.

34. The Open Shortest Path First (OSPF) protocol is an interior gateway routing protocol based on _____ routing.

35. Which of the following is an exterior gateway protocol (EGP)?

    a. EIGRP   c. RIP
    b. OSPF   d. BGP

36. Which of the following are true about a router? (Choose only two. If you choose more than 2 answers, the question will be marked wrong.)

    a. Routers enable different IP networks or IP subnets to communicate with each other.
    b. Routers choose paths between networks using MAC address information.
    c. Protocols are specialized chips on a router's motherboard used to store routing tables.
    d. Path selection is one of the main functions of a router.
    e. Routers have their interfaces enabled by default.

37. The _____ is the core routing protocol of the Internet. (**Specify complete name, not the acronym.**)

38. What network service is the most likely problem if you can ping a computer by IP address but not by name?

    a. ARP   c. DHCP
    b. DNS   d. ICMP

39. When you issue the ping command, what protocol will ping use?

    a. DNS   c. ARP
    b. DHCP   d. ICMP

40. _____ routing is the process of an administrator manually adding routes in each router's routing table.

41. _____ routing is the process of using protocols to find and update routing tables on routers.

42. _____ routing is used to send packets with a remote destination network not in the routing table to the next hop router.

43. RIP uses only _____ to determine the best path to an internetwork.

44. Your host is connected to a switch and you have steady green lights on both your NIC and the switch port. However, when you ping from the host, you receive a "request timed out" message. What layer of the OSI does the problem most likely exist?

    a. Transport   c. Data Link
    b. Network   d. Physical

45. Which of the following are methods of connection to a Cisco router?

    a. Console port   c. Auxiliary port
    b. Telnet   d. All of the above

46. RIP (Routing Information Protocol) has a maximum hop count of only _____ .

47. Which of the following describe the process identifier that is used to run OSPF on a router? (Choose two.)

    a. It is globally significant.
    b. It is locally significant.
    c. It is an optional parameter required only if multiple OSPF processes are running on the router.
    d. It is needed to identify a unique instance of an OSPF database.
    e. All routes in the same OSPF area must have the same process ID if they are to exchange routing information.

48. You get a call from a network administrator who tells you he typed the following into his router:

```
Router(config)#router ospf 1
Router(config-router)#network 10.0.0.0 255.0.0.0 area 0
```

He tells you he still can't see any routes in the routing table. What configuration error did the administrator make?

    a. The OSPF area is wrong.
    b. The OSPF process ID is incorrect.
    c. The wildcard mask is incorrect.
    d. The AS configuration is wrong.

49. Which of the following statements is true with regard to VLANs?

    a. VLANs greatly reduce network security.
    b. VLANs increase the number of collision domains while decreasing their size.
    c. Network adds, moves, and changes are achieved with ease by just configuring a port into the appropriate VLAN.
    d. VLANs decrease the number of broadcast domains while decreasing their size.

50. What is the purpose of frame tagging in virtual LAN (VLAN) configurations?

    a. Inter-VLAN routing
    b. Frame identification over trunk links
    c. Encryption of network packets
    d. Frame identification over access links