

CCNA Class Final Test

(The Practice Exam)

Date: 4/1/2002 Total Questions: 66 Test time: 75min

1.

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

- A. NCP
- B. ISDN
- C. HDLC
- D. LCP

2.

You work in a large application-development company providing MIS services. This company has four 10Mbps shared hubs providing network services to an NT server. To meet the business requirements, you must provide many different types of hosts to allow the application developers to test the different applications they create. These hosts must be able to share data between each host and also send data to and from an enterprise server. The hosts run at 10Mbps and the server at 100Mbps. Some applications only need 3Mbps of bandwidth to run at any given time. What network recommendation would you give this company if money were an issue?

- A. Replace the 10Mbps hubs with 100Mbps hubs.
- B. Install a router and connect all the hubs into separate collision domains and one large broadcast domain.
- C. Install a layer-2 switch and run a 10Mbps connection to the hosts and a 100Mbps connection to the server.
- D. Uses bridges to break up the collision domains and create one large broadcast domain.

3.

Write the command to configure IPX routing on a Cisco router with two interfaces. The first interface is an Ethernet LAN and must support 802.3 and 802.2. The second interface is a WAN interface and uses HDLC encapsulation. Use any IPX network numbers that you wish.

4.

What does the command
routerA(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.
- 5.**
What ISDN command will bring up the second BRI at 50 percent load?
 - A.**
load balance 50
 - B.**
load share 50
 - C.**
dialer load-threshold 125
 - D.**
dialer idle-timeout 125
- 6.**
What PPP protocol provides dynamic addressing, authentication, and multilink?
 - A.**
NCP
 - B.**
HDLC
 - C.**
LCP
 - D.**
X.25
- 7.**
What command will display the line, protocol, DLCI, and LMI information of an interface?
 - A.**
sh pvc
 - B.**
show interface
 - C.**
show frame-relay pvc
 - D.**
sho runn
- 8.**
What type of access list uses the numbers 1–99?
 - A.**
IP standard
 - B.**
IPX standard
 - C.**
IP extended
 - D.**
IPX extended
 - E.**
IPX SAP filter
- 9.**
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 still receives updates
- C. Stops the router from receiving any dynamic updates
- D. Stops the router from sending any dynamic updates

10. Which protocol does Ping use?

- A. TCP
- B. ARP
- C. ICMP
- D. BootP

11. Write the command that will show the IPX RIP and SAP information sent and received on a router.

12. Which of the following commands will 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

13. Which of the following commands will create VLAN 5 with an ID of Marketing on a 1900 switch?

- A. 1900A#vlan 5 name Marketing
- B. 1900A(config)#vlan name Marketing 5
- C. 1900A(config)#vlan 5 name Marketing
- D. 1900A(config)# Marketing vlan 5

14. Which port on a bridge is the root port?

- A. The port with the lowest cost to the root bridge
- B. The port with the highest cost to the root bridge

- C.
Any active port
 - D.
Any 100Mbps port
15. If you wanted to delete the configuration stored in NVRAM, what would you type?
- A.
Erase startup
 - B.
Erase nvram
 - C.
Delete nvram
 - D.
Erase running
16. Write the command to create a second IPX network running the SNAP frame type on Ethernet 0.
17. Which class of IP address has the most host addresses available by default?
- A.
A
 - B.
B
 - C.
C
 - D.
A and B
18. How often are BPDU sent from a layer-2 device?
- A.
Never
 - B.
Every two seconds
 - C. Every 10 minutes
 - D. Every 30 seconds
19. Which of the following is true regarding VLANs? (Choose all that apply.)
- A. Two VLANs are configured by default on all Cisco switches.
 - B. VLANs only work if you have a complete Cisco switched internetwork. No off-brand switches are allowed.
 - C. You should not have more than 10 switches in the same VTP domain.
 - D. VTP is used to send VLAN information to switches in a configured VTP domain.
20. What LAN switch mode keeps CRC errors to a minimum but still has a fixed latency rate?
- A. STP
 - B. Store and forward
 - C. Cut-through
 - D. FragmentFree
21. How many broadcast domains are created when you segment a network

with a 12-port switch?

- A. One
 - B. Two
 - C. Five
 - D. 12
22. What PDU is at the Transport layer?
- A. User data
 - B. Session
 - C. Segment
 - D. Frame
23. What protocols are used to configure trunking on a switch? (Choose all that apply.)
- A. Virtual Trunk Protocol
 - B. VLAN
 - C. Trunk
 - D. ISL
24. What is a stub network?
- A. A network with more than one exit point
 - B. A network with more than one exit and entry point
 - C. A network with only one entry and no exit point
 - D. A network that has only one entry and exit
25. Where is a hub specified in the OSI model?
- A. Session layer
 - B. Physical layer
 - C. Data Link layer
 - D. Application layer
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- A. User data
 - B. Session
 - C. Segment
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- A. Session layer
 - B. Physical layer
 - C. Data Link layer
 - D. Application layer
30. Which layer of the OSI model creates a virtual circuit between hosts before transmitting data?
- A. Application
 - B. Session
 - C. Transport

- D. Network
 - E. Data Link
31. Which protocol does DHCP use at the Transport layer?
- A. IP
 - B. TCP
 - C. UDP
 - D. ARP
32. How do you copy a router IOS to a TFTP host?
- A. copy run starting
 - B. copy start running
 - C. copy running tftp
 - D. copy flash tftp
33. If your router is facilitating a CSU/DSU, which of the following commands do you need to use to provide the router with a 64000bps serial link?
- A. RouterA(config)#**bandwidth 64**
 - B. RouterA(config-if)#**bandwidth 64000**
 - C. RouterA(config)#**clockrate 64000**
 - D. RouterA(config-if)**clock rate 64**
 - E. RouterA(config-if)**clock rate 64000**
34. Which of the following is provided by the distribution layer? (Choose all that apply.)
- A. Breaking up of collision domains
 - B. Routing
 - C. Access lists
 - D. VLANs
35. Which of the following commands will 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
36. What command do you use to set the enable secret password on a Cisco router?
- A. RouterA(config)#**enable password todd**
 - B. RouterA(config)#**enable secret todd**
 - C. RouterA(config)#**enable secret password todd**
 - D. RouterA(config-if)#**enable secret todd**
37. Which protocol is used to find an Ethernet address from a known IP address?
- A. IP
 - B. ARP
 - C. RARP
 - D. BootP
38. Which command is used to upgrade an IOS on a Cisco router?
- A. copy tftp run
 - B. copy tftp start
 - C. config net
 - D. copy tftp flash
39. If you want to copy a configuration from the router's DRAM to NVRAM, which command do you use?

- A. copy run start
 - B. copy start run
 - C. config net
 - D. config mem
 - E. copy flash nvram
40. If an interface is administratively down, what is the problem?
- A. The interface is bad.
 - B. The interface is not connected to another device.
 - C. There is no problem.
 - D. The interface is looped.
41. If you are looking at an Ethernet analyzer and notice that the ISL frames are larger than a normal Ethernet frame, what size should you be seeing on the analyzer?
- A. 1518
 - B. 1522
 - C. 4202
 - D. 8190
42. How many collision domains are created when you segment a network with a 12-port switch?
- A. One
 - B. Two
 - C. Five
 - D. 12
43. What is the administrative distance of static routes by default?
- A. 0
 - B. 1
 - C. 10
 - D. 100
44. What was the first solution for counting to infinity?
- A. Holddowns
 - B. Triggered updates
 - C. Setting a maximum hop count
 - D. Reverse poison
45. Which protocol is used to send a Destination Network Unknown message back to originating hosts?
- A. TCP
 - B. ARP
 - C. ICMP
 - D. BootP
46. What is the distance of a 1000BaseSX MMF using a 62.5- and 50-micron core and a 780-nanometer laser?
- A. 100 meters
 - B. 260 meters
 - C. 400 meters
 - D. 1000 feet
47. At which layer do packets occur?
- A. Session
 - B. Transport
 - C. Network
 - D. Data Link
48. Which of the following is not one of the advantages of using static

routes over dynamic routing?

- A. Fast convergence
 - B. No CPU usage
 - C. No bandwidth usage
 - D. Security
49. How do you copy a configuration stored on a TFTP host to DRAM?
- A. copy run start
 - B. copy start run
 - C. copy tftp flash
 - D. copy tftp running
50. If you wanted to create dynamic VLANs, how would you do it?
- A. Use static memberships
 - B. Hire a junior administrator
 - C. Via a DHCP server
 - D. Via a VLAN Management Policy Server
51. What type of access list uses the numbers 100–199?
- A. IP standard
 - B. IPX standard
 - C. IP extended
 - D. IPX extended
 - E. IPX SAP filter
52. Write the command to add a subinterface to Ethernet 0 with the 802.3 frame type.
53. Which of the following routing protocols uses bandwidth and delay of the line when making routing decisions?
- A. RIP
 - B. Static
 - C. IGRP
 - D. OSPF
54. What type of access list uses the numbers 1000–1099?
- A. IP standard
 - B. IPX standard
 - C. IP extended
 - D. IPX extended
 - E. IPX SAP filter
55. What is a pre-10.3 IOS command that lets you copy a configuration from a TFTP host to DRAM?
- A. config t
 - B. config net
 - C. config mem
 - D. wr mem
56. Which of the following commands is a way of turning on RIP routing?
- A. RouterA#**routing rip**
 - B. Router(config)#**routing rip**
 - C. RouterA#**router rip**
 - D. Router(config)#**router rip**
 - E. router(config-router)#**router rip**
57. What type of access list uses the numbers 800–899?
- A. IP standard
 - B. IPX standard
 - C. IP extended
 - D. IPX extended

- E. IPX SAP filter
58. What two commands will show you all your configured PVCs?
- A. sh pvc
 - B. show interface
 - C. show frame-relay pvc
 - D. show run
59. If you connect a Cisco router and a 3Com router through a T-1, why won't they work by default?
- A. Cisco and 3Com are not compatible.
 - B. 3Com was purchased by Cisco and scrapped.
 - C. The serial encapsulations are not compatible by default.
 - D. The Ethernet frame types are not compatible by default.
60. You have a large Ethernet network in your office. Which of the following is true regarding this network?
- A. You can use a FastEthernet full-duplex connection using 10Base2.
 - B. You can use full duplex when connecting a point-to-point connection between two nodes.
 - C. You can use store and forward with a full-duplex connection.
 - D. You can use cut-through with half duplex.
61. You have large files that you need to transfer from your home to your remote corporate office. You need to do this periodically and quickly. What technology would be best suited for your situation?
- A. Frame Relay
 - B. Ethernet
 - C. ISDN
 - D. Token Ring
 - E. ATM
62. Write the command to see the NetWare servers running on your network.
63. What protocol is used at layer 2 to help stop network loops?
- A. BPDU
 - B. STP
 - C. VLANs
 - D. Switches
64. Write the command to create a subinterface on Ethernet 0 that allows the Ethernet_II frame type.
65. What command would you use to verify your VLAN configuration on a 1900 switch?
- A. Show config
 - B. Show vlan
 - C. Show vlan info
 - D. Sh startup-config
66. BECN is used for what?
- A. PPP authentication
 - B. ISDN BRI load balancing
 - C. Frame Relay congestion control
 - D. HDLC protocol identification of the Network layer

Answers to the Test

1. A. Network Control Protocol identifies the Network layer protocol used in the packet. See Chapter 10 for more information.
2. C. The best answer is to use a layer-2 switch and provide collision domains to each device. This will provide the most bang for the buck in terms of network equipment.
3. Config t
lpx routing
Int e0
lpx network 10
Int e0.10
lpx network 10a encaps sap
Int s0
lpx network 20
The global command to configure IPX is ipx routing. To configure an interface, you must be in interface configuration. Sap is the Cisco keyword for 802.2; 802.3 is the default if no encapsulation is specified. See Chapter 8 for more information.
4. C. The command line console 0 places you at a prompt where you can then set your console user-mode password. See Chapter 4 for more information.
5. C. The dialer load-threshold 125 command tells the router to bring up the second BRI at 50 percent load. See Chapter 10 for more information.
6. C. Link Control Protocol in the PPP stack provides dynamic addressing, authentication, and multilink. See Chapter 10 for more information.
7. B. The show interface command shows the line, protocol, DLCI, and LMI information of an interface. See Chapter 10 for more information.
8. A. IP standard access lists use the numbers 1–99. See Chapter 9 for more information.
9. B. The passive command, short for passive-interface, stops regular updates from being sent out an interface. However, the interface can still receive updates. See Chapter 5 for more information.
10. C. ICMP is the protocol at the Network layer that is used to send echo requests and replies. See Chapter 3 for more information.
11. show ipx traffic. The command show ipx traffic shows the RIP and SAP information being sent and received on a router. The command show ipx interface shows the IPX RIP and SAP information being sent and received on a specific interface. See Chapter 8 for more information.
12. C. The command line vty 0 4 places you in a prompt that will allow you to set or change your Telnet password. See Chapter 4 for more information.
13. C. To create a VLAN on a 1900 switch, use the global configuration command vlan [#] name [name]. For more information on how to create VLANs, see Appendix B.
14. A. The port with the lowest cost to the root bridge is the root port of the bridge. See Chapter 2 for more information.
15. A. The command erase-startup-config deletes the configuration

stored in NVRAM. See Chapter 4 for more information.

16. Config t

lpx network 10c encap snap secondary

The keyword for SNAP is snap. See Chapter 8 for more information.

17. A. Class A addressing provides 24 bits for hosts addressing. See Chapter 3 for more information.

18. B. Every two seconds, BPDUs are sent out from all active bridge ports by default. See Chapter 2 for more information.

19. D. Switches do not propagate VLAN information by default; you must configure the VTP domain. Virtual Trunk Protocol (VTP) is used to propagate VLAN information across a trunked link. See Chapter 6 for more information.

20. D. FragmentFree LAN switching checks into the data portion of the frame to make sure no fragmentation has occurred. See Chapter 2 for more information.

21. A. By default, switches break up collision domains but are one large broadcast domain. See Chapter 2 for more information.

22. C. Segmentation happens at the Transport layer. See Chapter 1 for more information.

23. C, D. VTP is not right because it has nothing to do with trunking, except that it sends VLAN information across a trunked link. Trunk protocol and ISL are used to configure trunking on a port. See Chapter 6 for more information.

24. D. Stub networks have only one connection to an internetwork. Default routes can only be set on a stub network, or network loops may occur. See Chapter 5 for more information.

25. B. Hubs regenerate electrical signals, which are specified at the Physical layer. See Chapter 1 for more information.

26. B, C. You can configure VLAN memberships on a port either statically or dynamically. See Chapter 6 for more information.

27. B. The command show controllers s 0 tells you what type of serial connection you have. If it is a DCE, you need to provide the clock rate. See Chapter 4 for more information.

28. C. The old command config mem was used to copy the configuration stored in NVRAM to RAM and append the file in DRAM, not replace it. The new command is copy start run. See Chapter 7 for more information.

29. C. The primary reason the OSI model was created was so that different vendors' equipment could interoperate. See Chapter 1 for more information.

30. C. The Transport layer creates virtual circuits between hosts before transmitting any data. See Chapter 1 for more information.

31. C. User Datagram Protocol is a connection network service at the Transport layer, and DHCP uses this connectionless service. See Chapter 3 for more information.

32. C. The command used to copy a configuration from a router to a TFTP host is copy running-config tftp, or copy startupconfig tftp, depending on which file you want to use. See Chapter 7 for more information.

33. E. The clock rate command is two words, and the speed of the line is in bps. See Chapter 4 for more information.

34. B, C, D. The distribution layer is where routers are defined. Access

lists and VLANs can be created at this layer as well. See Chapter 1 for more information.

35. C. The command line `vtty 0 4` places you in a prompt that will allow you to set or change your Telnet password. See Chapter 4 for more information.

36. B. The command `enable secret todd` sets the enable secret password to `todd`. See Chapter 4 for more information.

37. B. If a device knows the IP address of where it wants to send a packet, but doesn't know the hardware address, it will send an ARP broadcast looking for the hardware or, in this case, Ethernet address. See Chapter 3 for more information.

38. D. The command `copy tftp flash` places a new file in flash memory, which is the default location for the Cisco IOS in Cisco routers. See Chapter 7 for more information.

39. A. The command to copy `running-config`, which is the file in DRAM, to NVRAM is `copy running-config startup-config`. See Chapter 7 for more information.

40. C. If an interface is administratively shut down, it just means the administrator needs to perform a `no shutdown` on the interface. See Chapter 4 for more information.

41. B. An ISL frame can be up to 1522 bytes. See Chapter 6 for more information.

42. D. Layer-2 switching creates individual collision domains. See Chapter 2 for more information.

43. B. Static routes have an administrative distance of one by default. See Chapter 5 for more information.

44. C. Before a maximum hop count was used in distance-vector networks, the only way to solve network loops was to reboot all the routers in the network. See Chapter 5 for more information.

45. C. ICMP is the protocol at the Network layer that is used to send messages back to an originating router. See Chapter 3 for more information.

46. B. Gigabit Ethernet, using multimode fiber, can run up to 260 meters. See Chapter 1 for more information.

47. C. PDUs at the Network layer are called packets. See Chapter 1 for more information.

48. A. Static routes do not converge and must be updated by hand. See Chapter 5 for more information.

49. D. The command `copy tftp running-config` copies the `runningconfig` file to DRAM. See Chapter 7 for more information.

50. D. A VMPS server must be configured with the hardware addresses of all hosts on the internetworks. See Chapter 6 for more information.

51. C. IP extended access lists use the numbers 100–199. See Chapter 9 for more information.

52. `Config t`

`Int e0.100`

`lpx network 10a encap novell-ether`

The command `int e0.` followed by a number creates a subinterface.

`802.3` is the Cisco keyword `novell-ether`. See Chapter 8 for more information.

53. C. IGRP, as well as EIGRP. Use `bandwidth` and `delay` of the line, by default, when making routing decisions. See Chapter 5 for more information.

54. E. IPX SAP filters use the access list numbers 1000–1099. See Chapter 9 for more information.
55. B. The old command to copy a file from a TFTP host to DRAM is `config net`. See Chapter 7 for more information.
56. D. The global command `router rip` will turn RIP routing on in the router. You then need to tell the RIP routing protocol which network to advertise. See Chapter 5 for more information.
57. B. IPX standard access lists use the numbers 800–899. See Chapter 9 for more information.
58. C, D. The commands `show running-config` and `show frame pvc` will show you the configured PVC for each interface or subinterface. See Chapter 10 for more information.
59. C. Each vendor uses HDLC by default on the serial links. They are both proprietary. To communicate between vendors, you must use something like PPP or Frame Relay. See Chapter 10 for more information.
60. B. Full-duplex Ethernet creates a point-to-point connection between the transmitter circuitry of the transmitting station and the receiving circuitry of the receiving station.
61. C. Even though newer technologies are probably a better choice at this point for home-to-corporate office connections, Cisco's answer to this question is ISDN because of the period connection that is needed.
62. `show ipx servers`. The command `show ipx servers` shows from which NetWare servers the routers have received SAP packets. See Chapter 8 for more information.
63. B. To stop network loops from occurring with redundant links, layer-2 devices implement the Spanning-Tree Protocol. See Chapter 2 for more information.
64. `Config t`
`Int e0.10`
`lpx network 10b encaps arpa`
 The keyword for Ethernet_II is `arpa`. See Chapter 8 for more information.
65. B. The command `show vlan` will show you all configured VLANs on the switch. For more information on how to verify VLAN configurations, see Appendix B.
66. C. Backward-Explicit Congestion Notification is used to tell the transmitting device to slow down because the Frame Relay switch is congested. See Chapter 10 for more information.