1. Which tasks can be accomplished by using the command history feature? (Choose two.)

View a list of commands entered in a previous session.

Recall up to 15 command lines by default.

\*\*Set the command history buffer size.

\*\*Recall previously entered commands.

Save command lines in a log file for future reference.

2. What is the first action in the boot sequence when a switch is powered on?

load the default Cisco IOS software

load boot loader software

low-level CPU initialization

\*\*load a power-on self-test program

3. What must an administrator have in order to reset a lost password on a router?

a TFTP server

a crossover cable

access to another router

\*\*physical access to the router

4. When configuring a switch for SSH access, what other command that is associated with the login local command is required to be entered on the switch?

\*\*enable secret password

\*\*password password

\*\*username username secret secret

\*\*login block-for seconds attempts number within\*seconds\*

5. Which command displays information about the auto-MDIX setting for a specific interface?​

show interfaces

\*\*show controllers

show processes

show running-config

6. If one end of an Ethernet connection is configured for full duplex and the other end of the connection is configured for half duplex, where would late collisions be observed?

on both ends of the connection

on the full-duplex end of the connection

only on serial interfaces

\*\*on the half-duplex end of the connection

7. Which command is used to set the BOOT environment variable that defines where to find the IOS image file on a switch?

config-register

\*\*boot system

boot loader

confreg

8. What does a switch use to locate and load the IOS image?

\*\*BOOT environment variable

IOS image file

POST

startup-config

NVRAM

9. Which protocol adds security to remote connections?

FTP

HTTP

NetBEUI

POP

\*\*SSH

10. What is a characteristic of an IPv4 loopback interface on a Cisco IOS router?​

The no shutdown command is required to place this interface in an UP state.​

\*\*It is a logical interface internal to the router.

Only one loopback interface can be enabled on a router.​

It is assigned to a physical port and can be connected to other devices.

11. What is the minimum Ethernet frame size that will not be discarded by the receiver as a runt frame?

\*\*64 bytes

512 bytes

1024 bytes

1500 bytes

12. After which step of the switch bootup sequence is the boot loader executed?

after CPU initialization

after IOS localization

after flash file system initialization

\*\*after POST execution

13. Which impact does adding a Layer 2 switch have on a network?

an increase in the number of dropped frames

\*\*an increase in the size of the broadcast domain

an increase in the number of network collisions

an increase in the size of the collision domain

14. Which characteristic describes cut-through switching?

Error-free fragments are forwarded, so switching occurs with lower latency.

\*\*Frames are forwarded without any error checking.

Only outgoing frames are checked for errors.

Buffering is used to support different Ethernet speeds.

15. What is the significant difference between a hub and a Layer 2 LAN switch?

\*\*A hub extends a collision domain, and a switch divides collision domains.

A hub divides collision domains, and a switch divides broadcast domains.

Each port of a hub is a collision domain, and each port of a switch is a broadcast domain.

A hub forwards frames, and a switch forwards only packets.

16. Which statement is correct about Ethernet switch frame forwarding decisions?

\*\*Frame forwarding decisions are based on MAC address and port mappings in the CAM table.

Cut-through frame forwarding ensures that invalid frames are always dropped.

Only frames with a broadcast destination address are forwarded out all active switch ports.

Unicast frames are always forwarded regardless of the destination MAC address.

17. How do switch buffers affect network performance?

They provide error checking on the data received.

\*\*They store frames received, thus preventing premature frame discarding when network congestion occurs.

They provide extra memory for a particular port if autonegotiation of speed or duplex fails.

They hold data temporarily when a collision occurs until normal data transmission resumes.

18. Which switch characteristic helps keep traffic local and alleviates network congestion?

\*\*high port density

fast port speed

large frame buffers

fast internal switching

19. Which switch component reduces the amount of packet handling time inside the switch?

\*\*ASIC

dual processors

large buffer size

store-and-forward RAM

21. What information is added to the switch table from incoming frames?

\*\*source MAC address and incoming port number

destination MAC address and incoming port number

source IP address and incoming port number

destination IP address and incoming port number

22. Which switching method ensures that the incoming frame is error-free before forwarding?

cut-through

FCS

fragment free

\*\*store-and-forward

24. Under which two occasions should an administrator disable DTP while managing a local area network? (Choose two.)

\*\*when connecting a Cisco switch to a non-Cisco switch

when a neighbor switch uses a DTP mode of dynamic auto

when a neighbor switch uses a DTP mode of dynamic desirable

\*\*on links that should not be trunking

on links that should dynamically attempt trunking

25. Which two characteristics describe the native VLAN? (Choose two.)

Designed to carry traffic that is generated by users, this type of VLAN is also known as the default VLAN.

\*\*The native VLAN traffic will be untagged across the trunk link.

This VLAN is necessary for remote management of a switch.

High priority traffic, such as voice traffic, uses the native VLAN.

\*\*The native VLAN provides a common identifier to both ends of a trunk.

26. On a switch that is configured with multiple VLANs, which command will remove only VLAN 100 from the switch?

Switch# delete flash:vlan.dat

Switch(config-if)# no switchport access vlan 100

Switch(config-if)# no switchport trunk allowed vlan 100

\*\*Switch(config)# no vlan 100

28. A network contains multiple VLANs spanning multiple switches. What happens when a device in VLAN 20 sends a broadcast Ethernet frame?

All devices in all VLANs see the frame.

Devices in VLAN 20 and the management VLAN see the frame.

\*\*Only devices in VLAN 20 see the frame.

Only devices that are connected to the local switch see the frame.

30. What happens to switch ports after the VLAN to which they are assigned is deleted?

The ports are disabled.

The ports are placed in trunk mode.

The ports are assigned to VLAN1, the default VLAN.

\*\*The ports stop communicating with the attached devices.

Explanation: The IEEE 802.1Q standard header includes a 4-byte VLAN tag:

\*\*Type – A 2-byte value called the tag protocol ID (TPID) value.

\*\*User priority – A 3-bit value that supports level or service implementation.

\*\*Canonical Format Identifier (CFI) – A 1-bit identifier that enables Token Ring frames to be carried across Ethernet links.

\*\*VLAN ID (VID) – A 12-bit VLAN identification number that supports up to 4096 VLAN IDs.

34. Port Fa0/11 on a switch is assigned to VLAN 30. If the command no switchport access vlan 30 is entered on the Fa0/11 interface, what will happen?

Port Fa0/11 will be shutdown.

An error message would be displayed.

\*\*Port Fa0/11 will be returned to VLAN 1.

VLAN 30 will be deleted.

35. Which command displays the encapsulation type, the voice VLAN ID, and the access mode VLAN for the Fa0/1 interface?

show vlan brief

\*\*show interfaces Fa0/1 switchport

show mac address-table interface Fa0/1

show interfaces trunk

36. Refer to the exhibit. A technician is programming switch SW3 to manage voice and data traffic through port Fa0/20. What, if anything, is wrong with the configuration?

There is nothing wrong with the configuration.

Interface Fa0/20 can only have one VLAN assigned.

The mls qos trust cos command should reference VLAN 35.

\*\*The command used to assign the voice VLAN to the switch port is incorrect.

37. Which four steps are needed to configure a voice VLAN on a switch port? (Choose four).

Configure the interface as an IEEE 802.1Q trunk.

\*\*Assign the voice VLAN to the switch port.

Activate spanning-tree PortFast on the interface.

\*\*Ensure that voice traffic is trusted and tagged with a CoS priority value.

\*\*Add a voice VLAN.

Configure the switch port interface with subinterfaces.

Assign a data VLAN to the switch port.

\*\*Configure the switch port in access mode.

40. Refer to the exhibit. A network administrator has configured router CiscoVille with the above commands to provide inter-VLAN routing. What command will be required on a switch that is connected to the Gi0/0 interface on router CiscoVille to allow inter-VLAN routing?​

switchport mode access

no switchport

\*\*switchport mode trunk

switchport mode dynamic desirable

41. A high school uses VLAN15 for the laboratory network and VLAN30 for the faculty network. What is required to enable communication between these two VLANs while using the router-on-a-stick approach?

A multilayer switch is needed.

A router with at least two LAN interfaces is needed.

Two groups of switches are needed, each with ports that are configured for one VLAN.

\*\*A switch with a port that is configured as a trunk is needed when connecting to the router.

42. When routing a large number of VLANs, what are two disadvantages of using the router-on-a-stick inter-VLAN routing method rather than the multilayer switch inter-VLAN routing method? (Choose two.)

Multiple SVIs are needed.

\*\*A dedicated router is required.

Router-on-a-stick requires subinterfaces to be configured on the same subnets.

Router-on-a-stick requires multiple physical interfaces on a router.

\*\*Multiple subinterfaces may impact the traffic flow speed.

45. Refer to the exhibit. A network administrator has configured router CiscoVille with the above commands to provide inter-VLAN routing. What type of port will be required on a switch that is connected to Gi0/0 on router CiscoVille to allow inter-VLAN routing?

routed port

access port

\*\*trunk port

SVI

48. What is a characteristic of a routed port on a Layer 3 switch?

It supports trunking.

\*\*It is not assigned to a VLAN.

It is commonly used as a WAN link.

It cannot have an IP address assigned to it.

50. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw(config-if)# mdix auto command?

\*\*It automatically adjusts the port to allow device connections to use either a straight-through or a crossover cable.

It applies an IPv4 address to the virtual interface.

It applies an IPv6 address to the virtual interface.

It permits an IPv6 address to be configured on a switch physical interface.

It updates the MAC address table for the associated port.

51. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw(config-if)# ip address 172.18.33.88 255.255.255.0 command?

\*\*It applies an IPv4 address to the virtual interface.

It applies an IPv6 address to the virtual interface.

It activates a virtual or physical switch interface.

It permits an IPv6 address to be configured on a switch physical interface.

It updates the MAC address table for the associated port.

52. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw# configure terminal command?

\*\*It enters the global configuration mode.

It enters configuration mode for a switch virtual interface.

It applies an IPv4 address to the virtual interface.

It updates the MAC address table for the associated port.

It permits an IPv6 address to be configured on a switch physical interface.

53. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw# configure terminal command?

\*\*It enters the global configuration mode.

It saves the running configuration to NVRAM.

It disables a virtual or physical switch interface.

It updates the MAC address table for the associated port.

It saves the startup configuration to the running configuration.

54. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw(config-if)# shutdown command?

\*\*It disables a virtual or physical switch interface.

It saves the running configuration to NVRAM.

It activates a virtual or physical switch interface.

It updates the MAC address table for the associated port.

It saves the startup configuration to the running configuration.

55. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw(config-if)# shutdown command?

\*\*It disables a virtual or physical switch interface.

It applies an IPv6 address to the virtual interface.

It applies an IPv4 address to the virtual interface.

It permits an IPv6 address to be configured on a switch physical interface.

It updates the MAC address table for the associated port.

56. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw(config-if)# ipv6 address 2001:db8:a2b4:88::1/64 command?

\*\*It applies an IPv6 address to the virtual interface.

It activates a virtual or physical switch interface.

It applies an IPv4 address to the virtual interface.

It permits an IPv6 address to be configured on a switch physical interface.

It updates the MAC address table for the associated port.

57. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw(config-if)# exit command?

\*\*It returns to global configuration mode.

It returns to privileged mode.

It configures the default gateway for the switch.

It enters user mode.

It saves the startup configuration to the running configuration.

58. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw> enable command?

\*\*It enters privileged mode.

It enters the global configuration mode.

It enters configuration mode for a switch virtual interface.

It updates the MAC address table for the associated port.

It permits an IPv6 address to be configured on a switch physical interface.

58. A technician is configuring a new Cisco 2960 switch. What is the effect of issuing the BranchSw(config-if)# duplex full command?

\*\*It allows data to flow in both directions at the same time on the interface.

It allows data to flow in only one direction at a time on the interface

It automatically adjusts the port to allow device connections to use either a straight-through or a crossover cable.

It configures the switch as the default gateway.

It encrypts user-mode passwords when users connect remotely.

60. What type of VLAN should not carry voice and network management traffic?

\*\*data VLAN

voice VLAN

management VLAN

security VLAN

62. What type of VLAN is designed to reserve bandwidth to ensure IP Phone quality?

\*\*voice VLAN

trunk VLAN

security VLAN

management VLAN

63. What type of VLAN is initially the management VLAN?

\*\*default VLAN

native VLAN

data VLAN

management VLAN

64. What type of VLAN is designed to have a delay of less than 150 ms across the network?

\*\*voice VLAN

desirable VLAN

trunk VLAN

security VLAN

65. What type of VLAN is used to separate the network into groups of users or devices?

\*\*data VLAN

management VLAN

voice VLAN

native VLAN

66. What type of VLAN is configured specifically for network traffic such as SSH, Telnet, HTTPS, HTTP, and SNMP?

\*\*management VLAN

security VLAN

trunk VLAN

voice VLAN

68. What type of VLAN supports untagged traffic?

\*\*native VLAN

voice VLAN

security VLAN

management VLAN

69. What type of VLAN supports untagged traffic?

\*\*native VLAN

desirable VLAN

trunk VLAN

security VLAN

72. Which solution would help a college alleviate network congestion due to collisions?

a firewall that connects to two Internet providers

\*\*a high port density switch

a router with two Ethernet ports

a router with three Ethernet ports

73. Which two statements are correct with respect to SVI inter-VLAN routing? (Choose two.)

\*\*Switching packets is faster with SVI.

\*\*There is no need for a connection to a router.

Virtual interfaces support subinterfaces.

SVIs can be bundled into EtherChannels.

SVIs eliminate the need for a default gateway in the hosts.

75. Which type of VLAN is used to designate which traffic is untagged when crossing a trunk port?

data

default

\*\*native

management

76. A network administrator issues the show vlan brief command while troubleshooting a user support ticket. What output will be displayed?

the VLAN assignment and membership for device MAC addresses

\*\*the VLAN assignment and membership for all switch ports

the VLAN assignment and trunking encapsulation

the VLAN assignment and native VLAN

Which message is displayed when 10.10.10.1 is entered into the PC1 Web Browser address bar?

Local Server

Test Server

\*\*File Server

Cisco Server

Explanation:Place the options in the following order:

a client initiating a message to find a DHCP server – DHCPDISCOVER

a DHCP server responding to the initial request by a client – DHCPOFFER

the client accepting the IP address provided by the DHCP server – DHCPREQUEST

the DHCP server confirming that the lease has been accepted – DHCPACK

79. What type of VLAN is configured specifically for network traffic such as SSH, Telnet, HTTPS, HHTP, and SNMP?

voice VLAN

\*\*management VLAN

native VLAN

security VLAN