

CCT Routing & Switching

Cisco 640-692

Version Demo

Total Demo Questions: 11

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Topic Break Down

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QUESTION NO: 1 - (SIMULATION)

From the left, drag the CLI commands to the right in the proper sequence to configure FastEthernet0 from user EXEC mode. Not all options will be used.

configure interface fastethernet0	Step 1
configure terminal	Step 2
enable	Step 3
interface fastethernet0	
privilege	

ANSWER: See the explanation for the answer

Explanation:

The correct sequence to configure FastEthernet0 starting from user EXEC mode is:

`enable` enters privileged EXEC mode, `configure terminal` enters global configuration mode, and `interface fastethernet0` enters interface configuration mode. The options `configure interface fastethernet0` and `privilege` are not used.

QUESTION NO: 2

What is the effect of the `service password-encryption` command on a Cisco device?

- A. It obscures plaintext passwords in the configuration.
- B. It enables SSH access on VTY lines.
- C. It creates an enable secret password.
- D. It disables console access.

ANSWER: A

Explanation:

The `service password-encryption` command obscures plaintext passwords in the running configuration and startup configuration. Passwords such as console-line, VTY-line, and locally configured passwords are displayed in an encrypted Type 7 form rather than as readable text.

This command provides only basic password obfuscation and should not be considered strong protection for configuration files. The `enable secret` command uses a stronger password hash and is preferred for protecting privileged EXEC access. Cisco password configuration guidance is available in the [Cisco IOS Password Configuration Guide](#).

QUESTION NO: 3

Which type of memory stores the decompressed form of the Cisco IOS software and the running configuration?

- A. Flash
- B. ROM
- C. DRAM
- D. NVRAM

ANSWER: C

Explanation:

DRAM stores both the active, decompressed Cisco IOS image and the running configuration while the device is operating. During the boot process, the router or switch loads the IOS software image into DRAM so that the CPU can execute it. The image is decompressed in this volatile working memory as needed, providing the active operating environment for routing, switching, and management functions.

DRAM also holds the running configuration: the set of commands currently controlling the device. Configuration changes made from the CLI take effect by modifying this in-memory running configuration. Because DRAM is volatile, its contents are lost when the device reloads or loses power. To retain intended configuration changes across a restart, an administrator saves the running configuration to the startup configuration. Cisco's IOS fundamentals documentation describes RAM/DRAM as the location for the running configuration and the decompressed IOS image, and Cisco's configuration guides distinguish the active running configuration from the saved startup configuration. See [Cisco IOS Memory Types](#) and [Cisco Configuration Files](#).

QUESTION NO: 4

The pins and RJ-45 are numbered from 1 through 8. With the material points of the plug facing toward you, pin 1 is the leftmost pin. Which two sets are looped on an RJ-45 T1 loopback plug? (Choose two)

- A. Pins 1 and 4
- B. Pins 1 and 7
- C. Pins 2 and 5
- D. Pins 2 and 8
- E. Pins 1 and 5
- F. Pins 2 and 7

ANSWER: A C

Explanation:

For a standard T1 RJ-45/RJ-48C physical interface, the transmit pair uses pins 1 and 2, while the receive pair uses pins 4 and 5. A local loopback plug must connect each transmit conductor directly to its corresponding receive conductor so that signals sent by the interface return to that same interface for testing. Therefore, the loopback wiring pairs pins 1 and 4 together and pins 2 and 5 together. This arrangement preserves the two conductors of the T1 balanced circuit as they are returned from transmit to receive, allowing a technician to validate the router or CSU/DSU interface, cabling assumptions, and local framing behavior without requiring the far-end circuit to participate. The stated pin orientation is important because connector pin numbering reverses visually if the plug is viewed from the opposite side. Cisco's T1 troubleshooting guidance documents the RJ-45 loopback plug wiring as pin 1 to pin 4 and pin 2 to pin 5. See Cisco's [T1 loopback troubleshooting documentation](#) and its [loopback plug wiring reference](#).

QUESTION NO: 5

Which three of the following statements are true about a router? (Choose three)

- A. It forwards broadcast frames.
- B. It interconnects multiple networks together.
- C. It chooses the best route for your data to travel.
- D. It manages and analyzes a company's database.
- E. It divides a network into separate broadcast domains.

ANSWER: B C E

Explanation:

A router is a Layer 3 device that connects, or interconnects, distinct IP networks. Each router interface belongs to a separate network or subnet, enabling the router to move packets between those networks rather than simply extending one shared LAN. When a packet is destined for a remote network, the router consults its routing table, which can contain directly connected, static, and dynamically learned routes. It then selects the best matching route and forwards the packet through the appropriate outgoing interface or next hop. Cisco describes this forwarding decision as choosing the best path according to the routing table.

Routers also create boundaries between Layer 2 broadcast domains. A broadcast frame received on one router interface is not normally forwarded out another interface; consequently, every routed interface separates broadcasts and limits their scope to its local network segment. This behavior helps contain broadcast traffic and supports network segmentation. These core roles—connecting multiple networks, selecting routes for traffic, and separating broadcast domains—are fundamental router functions. See Cisco's [overview of router functions](#) and the Cisco Networking Academy discussion of [routing and network segmentation concepts](#).

QUESTION NO: 6

Refer to the exhibit.

```
Router#config1
Router(config)#line vty 04
Router(config-line)#password c1 sc0
Router(config-line)#login
```

Which user-mode password has just been set?

- A. Telnet
- B. Auxiliary
- C. SSH
- D. Console

ANSWER: A

Explanation:

Telnet is correct because the exhibit configures a password under the virtual terminal (VTY) line configuration context. VTY lines provide remote, inbound terminal access to a Cisco device. When the `password` command is applied to those lines and the `login` command is enabled, IOS prompts a user connecting through the configured remote terminal service for that line password before allowing user EXEC mode access. In the traditional IOS configuration model tested by this question, this is commonly described as the Telnet password, since Telnet sessions use the VTY lines for remote access. The password is not tied to an individual local username; it is a line password associated with the configured VTY range. Cisco documents that the `line vty` command enters the configuration mode used for inbound virtual-terminal connections, and line authentication can require a password before granting access. See Cisco's [remote-access security configuration guide](#) and the [Cisco IOS security command reference](#).

QUESTION NO: 7

Which port displays the bootup process on a Cisco device?

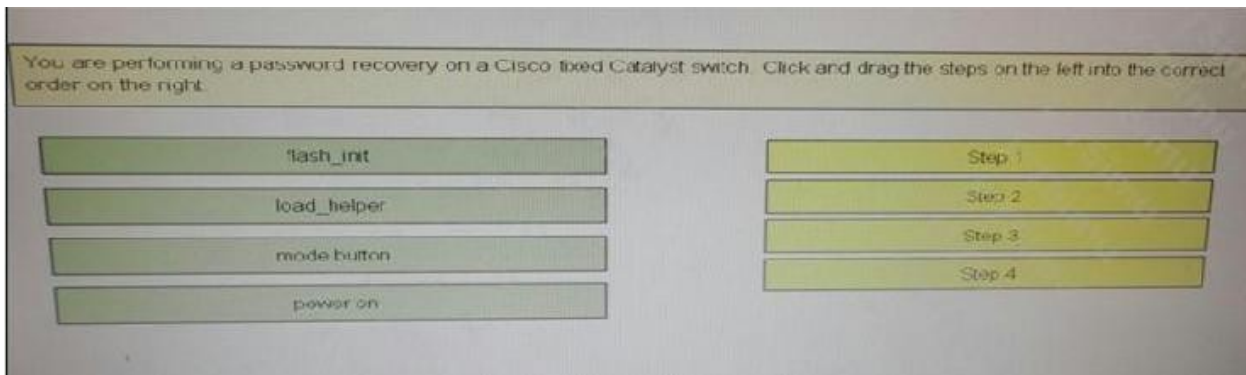
- A. ATM
- B. BVI
- C. Console
- D. Ethernet

ANSWER: C

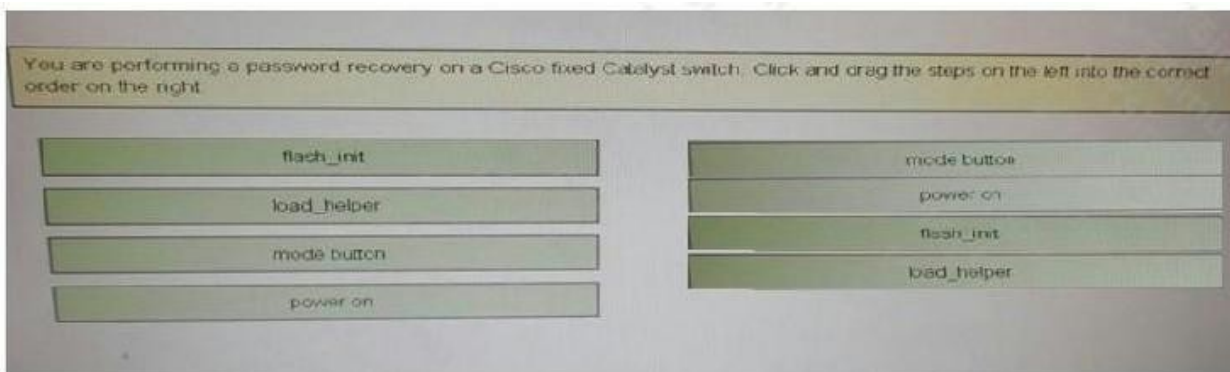
Explanation:

The **Console** port displays the Cisco device bootup process. It provides direct, out-of-band local management access, so it works independently of the network interfaces and their IP addressing. When a router or switch powers on, its bootstrap software, POST results where applicable, IOS image loading messages, configuration-register behavior, and startup-configuration processing are sent to the console session. This makes a console connection essential for initial deployment and for troubleshooting a device that has no working network connectivity. An administrator typically connects a computer to the console port using a console cable and terminal-emulation software, then uses the standard serial settings required by the platform—commonly 9600 bps, 8 data bits, no parity, 1 stop bit, and no flow control. Cisco's documentation describes the console port as the local management interface used to access the command-line interface and observe device startup output. For an overview of establishing a console session, see [Cisco's console and auxiliary port cabling guidance](#). Cisco's IOS configuration fundamentals also describe console access as part of initial device setup: [Cisco IOS initial configuration FAQ](#).

QUESTION NO: 8 - (DRAG DROP)



ANSWER:



Explanation:

Password recovery on a fixed-configuration Cisco Catalyst switch begins by using the physical Mode button to interrupt the normal startup process. The Mode button is pressed and held first, before the switch is powered on. While it remains pressed, power is connected to the switch. Holding the button during power-up causes the switch to stop at the low-level switch: prompt rather than continue loading the saved startup configuration. This is the required state for recovering access without using the existing password.

After the switch reaches the switch: prompt, the next correct command is `flash_init`. This initializes the flash file system so that the switch can access the files stored in flash memory. Initializing flash is necessary before working with the configuration files that are normally used during boot. Cisco's password-recovery procedure identifies flash initialization as the first command entered after reaching the recovery prompt.

Once flash has been initialized, `load_helper` is entered. This loads the helper functions needed by the recovery environment to work with the flash file system and continue the recovery procedure. With the Mode button held during power-on, followed by `flash_init` and `load_helper`, the switch is prepared for the subsequent configuration-file recovery actions. Cisco documents this process for Catalyst switch password recovery in its [password recovery procedure](#). Additional details about Catalyst switch recovery and boot behavior are available in the [Cisco Catalyst software configuration guide](#).

QUESTION NO: 9

On which three operating systems does HyperTerminal not come pre-installed? (Choose three)

- A. Windows XP
- B. Windows Vista
- C. Mac OSX
- D. Windows 98
- E. Windows 7
- F. Windows 2000

ANSWER: B C E

Explanation:

HyperTerminal was historically distributed as part of several older Microsoft Windows releases, including Windows 98, Windows 2000, and Windows XP. Microsoft stopped bundling HyperTerminal beginning with Windows Vista, so it is not pre-installed on either Windows Vista or Windows 7. A user needing serial-console access on those Windows versions must use another terminal-emulation application or obtain a separately installed alternative. Mac OSX is also correct because HyperTerminal is a Windows terminal-emulation product and was not included with Apple's operating system. On a Mac, serial console connections are commonly made with built-in command-line tools such as `screen`, or with separately installed terminal software. This distinction matters for Cisco device setup because initial configuration commonly requires a serial console session, and the workstation therefore needs suitable terminal-emulation software before connecting to the device console port. Cisco's console-connection guidance describes using terminal-emulation software for this purpose: [Cisco IOS Software Configuration Guide](#). HyperTerminal's publisher also documents its Windows product history and availability: [Hilgraeve HyperTerminal](#).

QUESTION NO: 10

Which two of the following statements are true about a switch? (Choose two)

- A. It is a repeater.
- B. It is a data link layer device.
- C. It will forward the frame out all ports when it receives a broadcast from a host.
- D. It reads the destination MAC address to forward traffic out the appropriate port.
- E. It acts as an amplifier.

ANSWER: B D

Explanation:

“It is a data link layer device.” is correct because a conventional Ethernet switch primarily operates at OSI Layer 2. It receives Ethernet frames, learns the source MAC address and the associated ingress interface, and builds a MAC address table (also called a forwarding database or CAM table). This Layer 2 function lets the switch make forwarding decisions within a LAN or VLAN without needing to examine Layer 3 routing information. Cisco describes switches as devices that connect endpoints in a network and use MAC addressing to move traffic efficiently between them.

“It reads the destination MAC address to forward traffic out the appropriate port.” is also correct. For each received frame, the switch examines the destination MAC address and consults its learned MAC address table for the relevant VLAN. When an entry exists, the frame is sent only through the interface associated with that destination, which reduces unnecessary traffic on other switch ports. This selective forwarding behavior is a core function of Ethernet switching and separates collision domains on individual switch interfaces. More detail is available in Cisco’s [What Is a Network Switch?](#) overview and the IEEE [802.1D bridge standard](#).

QUESTION NO: 11

Which protocol resolves an IPv4 address to a MAC address on a local Ethernet network?

- A. ARP
- B. CDP
- C. DNS
- D. DHCP

ANSWER: A**Explanation:**

Address Resolution Protocol (ARP) resolves a known IPv4 address to the corresponding Layer 2 MAC address on the local network. When a host needs to send an Ethernet frame to a local destination, it checks its ARP cache. If no mapping exists, the host sends an ARP request as a broadcast. The device that owns the requested IPv4 address replies with its MAC address, which is then used to build the Ethernet frame. ARP is defined in [RFC 826](#).