

# Cisco

## Exam 640-875

**Building Cisco Service Provider Next-Generation Networks, Part 1  
(SPNGN1)**

Version: 10.0

**[ Total Questions: 144 ]**

**Topic break down**

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Topic 1, IP Networks

Question No : 1 DRAG DROP - (Topic 1)

Drag the protocols from the left and drop them on the correct descriptions on the right.

SSH	identified by an EtherType of 0x0800
IPv4	identified by an EtherType of 0x0806
ICMP	identified by an EtherType of 0x86DD
Telnet	identified by IP protocol number 1
UDP	identified by IP protocol number 6
ARP	identified by IP protocol number 17
TCP	identified by TCP port 22
IPv6	identified by TCP port 23

Answer:

Drag the protocols from the left and drop them on the correct descriptions on the right.

SSH	IPv4
IPv4	ARP
ICMP	IPv6
Telnet	ICMP
UDP	TCP
ARP	UDP
TCP	SSH
IPv6	Telnet

Question No : 2 DRAG DROP - (Topic 1)

## Cisco 640-875 : Practice Test

Drag the descriptions from the left to the correct layers of the hierarchical network model design on the right.

<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">where end-user devices connect into the network</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">provides high-speed connectivity with low latency and offers a limited set of services and is designed to be highly available</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">provides policy-based network connectivity</div> <div style="border: 1px solid black; padding: 2px;">most feature-rich layer and provides security services such as port security</div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>Access Layer</b>  <div style="border: 1px solid black; height: 20px; margin: 2px 0; text-align: center;">Target</div> <div style="border: 1px solid black; height: 20px; margin: 2px 0; text-align: center;">Target</div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>Distribution Layer</b>  <div style="border: 1px solid black; height: 20px; margin: 2px 0; text-align: center;">Target</div> </div> <div style="border: 1px solid black; padding: 5px;"> <b>Core Layer</b>  <div style="border: 1px solid black; height: 20px; margin: 2px 0; text-align: center;">Target</div> </div>
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### Answer:

Drag the descriptions from the left to the correct layers of the hierarchical network model design on the right.

<div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">where end-user devices connect into the network</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">provides high-speed connectivity with low latency and offers a limited set of services and is designed to be highly available</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">provides policy-based network connectivity</div> <div style="border: 1px solid black; padding: 2px;">most feature-rich layer and provides security services such as port security</div>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>Access Layer</b>  <div style="border: 1px solid black; padding: 2px; margin: 2px 0;">where end-user devices connect into the network</div> <div style="border: 1px solid black; padding: 2px; margin: 2px 0;">most feature-rich layer and provides security services such as port security</div> </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <b>Distribution Layer</b>  <div style="border: 1px solid black; padding: 2px; margin: 2px 0;">provides policy-based network connectivity</div> </div> <div style="border: 1px solid black; padding: 5px;"> <b>Core Layer</b>  <div style="border: 1px solid black; padding: 2px; margin: 2px 0;">provides high-speed connectivity with low latency and offers a limited set of services and is designed to be highly available</div> </div>
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### Question No : 3 - (Topic 1)

What are two differences between WAN and LAN? (Choose two.)

- A. The customer has explicit control of their own WAN.
- B. The customer can modify the service provider route distinguishers.
- C. The customer has explicit control of their LAN.
- D. The customer is aware of the infrastructure within the WAN.
- E. WANs will differ from LANs with attributes such as latency and distance.

Answer: C,E

### Question No : 4 DRAG DROP - (Topic 1)

## Cisco 640-875 : Practice Test

Drag the network device functions or features from the left and drop them on the correct network devices on the right.

<div style="border: 1px solid #ccc; background-color: #e0f7fa; padding: 2px; margin-bottom: 5px;">Uses the Spanning Tree protocol to prevent loops.</div> <div style="border: 1px solid #ccc; background-color: #e0f7fa; padding: 2px; margin-bottom: 5px;">All ports on the network device belong only to one collision domain.</div> <div style="border: 1px solid #ccc; background-color: #e0f7fa; padding: 2px; margin-bottom: 5px;">Can be configured to perform Network Address Translations.</div> <div style="border: 1px solid #ccc; background-color: #e0f7fa; padding: 2px; margin-bottom: 5px;">Operates at OSI Layer 1.</div> <div style="border: 1px solid #ccc; background-color: #e0f7fa; padding: 2px; margin-bottom: 5px;">Makes intelligent forwarding decisions based on the MAC address.</div> <div style="border: 1px solid #ccc; background-color: #e0f7fa; padding: 2px; margin-bottom: 5px;">Separates broadcast domains.</div>	<div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 5px; margin-bottom: 5px;"> <b>Routers</b>  <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 2px; text-align: center; margin-bottom: 5px;">Target</div> <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 2px; text-align: center;">Target</div> </div> <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 5px; margin-bottom: 5px;"> <b>Hubs</b>  <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 2px; text-align: center; margin-bottom: 5px;">Target</div> <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 2px; text-align: center;">Target</div> </div> <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 5px;"> <b>Layer 2 LAN Switches</b>  <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 2px; text-align: center; margin-bottom: 5px;">Target</div> <div style="border: 1px solid #ccc; background-color: #fff9c4; padding: 2px; text-align: center;">Target</div> </div>
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### Answer:

Drag the network device functions or features from the left and drop them on the correct network devices on the right.

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### Question No : 5 - (Topic 1)

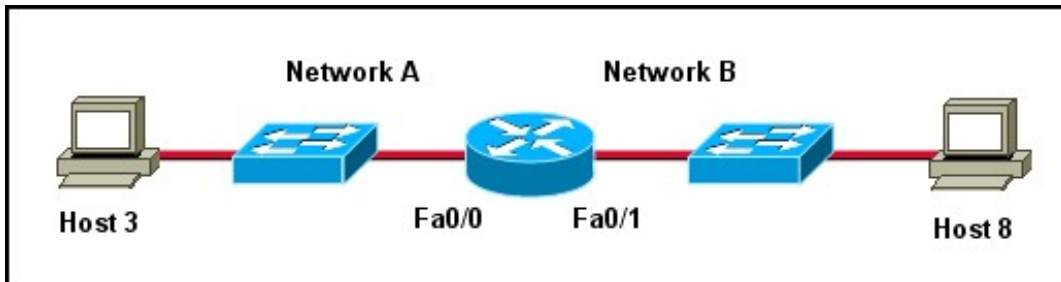
Which of the following correctly pairs the dotted decimal subnet mask with the correct number of binary bits that represent the subnet mask?

- A. 255.255.255.192 and /25
- B. 255.255.255.248 and /28
- C. 255.255.255.224 and /26
- D. 255.255.255.248 and /27
- E. 255.255.255.240 and /28
- F. 255.255.255.240 and /16

Answer: E

**Question No : 6 - (Topic 1)**

Refer to the exhibit.



Host 3 on Network A is sending data to Host 8 on Network B. Which address is the default gateway of Host 3?

- A. The address of the switch interface that is connected to router interface Fa0/0
- B. The address of the switch interface that is connected to router interface Fa0/1
- C. The address of the host that is connected to Network A
- D. The address of the host that is connected to Network B
- E. The address of the router interface Fa0/0
- F. The address of the router interface Fa0/1

**Answer: E**

**Question No : 7 - (Topic 1)**

What are two benefits of a star network topology? (Choose two.)

- A. Disruption of the entire network is not required when adding new machines.
- B. Any problem which leaves the network inoperable can be traced to the central hub.
- C. This network type requires less cable as compared to linear bus topology.
- D. The performance of one of the numerous nodes cannot reflect on the performance of other nodes.
- E. The performance of the entire network is directly dependent on the performance of the hub.

**Answer: A,B**

**Question No : 8 - (Topic 1)**

What is the term that refers to a device that has no Customer Equipment directly connected to it in a Service Provider network?

- A. Provider Edge Router
- B. Customer Edge Router
- C. Non-customer Edge Router
- D. Provider Router
- E. Provider Edge Provider Router

**Answer: D**

**Question No : 9 DRAG DROP - (Topic 1)**

Drag the network characteristics from the left and drop them on the correct network type on the right.

lower cost to operate and maintain		WAN
covers a larger geographical area		Target
requires service from a service provider		Target
has higher bandwidth		Target
a common Layer 2 encapsulation type is PPP		
typically uses Cat5 twisted pair cablings		
		LAN
		Target
		Target
		Target

**Answer:**

Drag the network characteristics from the left and drop them on the correct network type on the right.

lower cost to operate and maintain		WAN
covers a larger geographical area		covers a larger geographical area
requires service from a service provider		a common Layer 2 encapsulation type is PPP
has higher bandwidth		requires service from a service provider
a common Layer 2 encapsulation type is PPP		
typically uses Cat5 twisted pair cablings		
		LAN
		lower cost to operate and maintain
		typically uses Cat5 twisted pair cablings
		has higher bandwidth

## Cisco 640-875 : Practice Test

### Question No : 10 DRAG DROP - (Topic 1)

Drag the protocols from the left and drop them on the Internet Protocol Suite layers where the protocol belongs on the right. Not all the layers on the right are used.

ICMP	application layer
TCP	presentation layer
CDP	session layer
DNS	transport layer
	internet layer
	link layer
	physical layer

### Answer:

Drag the protocols from the left and drop them on the Internet Protocol Suite layers where the protocol belongs on the right. Not all the layers on the right are used.

ICMP	DNS
TCP	presentation layer
CDP	session layer
DNS	TCP
	ICMP
	CDP
	physical layer

### Question No : 11 DRAG DROP - (Topic 1)

Refer to the exhibit. Drag the routers from the left and drop them on the layer that they belong to on the right. Not all options on the left are used.

R1 to R8 and R19 to R25	access layer
R13 and R14	distribution layer
R1 to R4, R9, R10, R15, R16, R19 to R22	core layer
R5 to R8, R11, R12, R17, R18, R23 to R25	
R9 to R12, R13, R14, R15 to R18	
R9 to R12 and R15 to R18	

### Answer:



## Cisco 640-875 : Practice Test

Refer to the exhibit. Drag the routers from the left and drop them on the layer that they belong to on the right. Not all options on the left are used.

R1 to R8 and R19 to R25	R1 to R8 and R19 to R25
R13 and R14	R9 to R12 and R15 to R18
R1 to R4, R9, R10, R15, R16, R19 to R22	R13 and R14
R5 to R8, R11, R12, R17, R18, R23 to R25	
R9 to R12, R13, R14, R15 to R18	
R9 to R12 and R15 to R18	

### Question No : 12 - (Topic 1)

You are having problems browsing to <http://www.cisco.com> from your laptop that is running Windows. Your laptop is connected directly to a default gateway, which is a Cisco ISR G2 router. Which four options are the basic troubleshooting steps that you should use to troubleshoot this issue? (Choose four.)

- A.** Issue the ipconfig command from the Windows command line on your laptop to determine your laptop IP address and the default gateway IP address.
- B.** Issue the ipconfig /all command from the Windows command line on your laptop to determine the DNS server IP address.
- C.** Issue the ping {default gateway IP address} command from the Windows command line on your laptop to verify connectivity to the default gateway.
- D.** Issue the ping {DNS server IP address} command from the Windows command line on your laptop to verify connectivity to the DNS server.
- E.** Issue the ping tcp www.cisco.com 80 command from the Windows command line on your laptop to verify TCP port 80 connectivity to the www.cisco.com server.
- F.** From the ISR G2 CLI, issue the ping tcp www.cisco.com 80 command to verify TCP port 80 connectivity to the www.cisco.com server.
- G.** From the ISR G2 CLI, issue the ISR-G2#tracert www.cisco.com command to verify connectivity to the www.cisco.com server.
- H.** From the ISR G2 CLI, issue the ISR-G2#nslookup www.cisco.com command to determine the IP address of the www.cisco.com server.

**Answer: A,B,C,D**

### Question No : 13 DRAG DROP - (Topic 1)

## Cisco 640-875 : Practice Test

Drag the Cisco IOS XR CLI command from the left and drop it on the most appropriate OSI layer(s) on the right that can be used to verify the operations at that OSI layer.

show arp	Layer 1
show ip route	Layer 2
telnet	Layer 3
show controllers	Layers 4-7

### Answer:

Drag the Cisco IOS XR CLI command from the left and drop it on the most appropriate OSI layer(s) on the right that can be used to verify the operations at that OSI layer.

show arp	show controllers
show ip route	show arp
telnet	show ip route
show controllers	telnet

### Question No : 14 - (Topic 1)

The PE and CE interfaces are in the UP/UP state. The junior Network Engineer has validated Layer 3 functionality by pinging the adjacent interface, however the customer is unable to access the provider network. What should be your next troubleshooting step?

- A. Validate that the encapsulation method is utilizing Point-to-Point Protocol
- B. Validate that the destination customer network is in the correct VRF
- C. Validate that the circuit clocking is inaccurate and needs to be synchronized on both sides
- D. Check the physical connection between both devices to ensure stability
- E. Identify incorrect RADIUS configuration is present on the PE device
- F. Check that an access-list is mis-configured on the loopback 0 interface and needs to be corrected

### Answer: B

### Topic 2, IPv4 and IPv6 Addressing

### Question No : 15 DRAG DROP - (Topic 2)