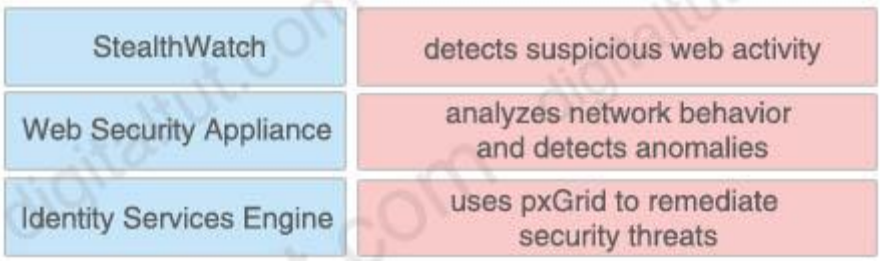
New ENCOR Questions 2

Question 1

Drag and drop the solutions that comprise Cisco Cyber Threat Defense from the left onto the objectives they accomplish on the right.



Answer:

+ detects suspicious web activity: Web Security Appliance
+ analyzes network behavior and detects anomalies: StealthWatch
+ uses pxGrid to remediate security threats: Identity Services Engine

Question 2

What are two characteristics of Cisco SD-Access elements? (Choose two)

A. Fabric endpoints are connected directly to the border node
B. The border node is required for communication between fabric and nonfabric devices
C. The control plane node has the full RLOC-to-EID mapping database
D. Traffic within the fabric always goes through the control plane node
E. The border node has the full RLOC-to-EID mapping database

Answer: B C

Question 3

Refer to the exhibit.

```
Current configuration: 142 bytes
vrf definition STAFF
!
!
interface GigabitEthernet1
 vrf forwarding STAFF
 no ip address
 negotiation auto
 no mop enabled
 no mop sysid
```

```
end
```

An engineer must assign an IP address of 192.168.1.1/24 to the GigabitEthemet1 interface. Which two commands must be added to the existing configuration to accomplish this task? (Choose two)

A. Router(config-vrf)#address-family ipv6
B. Router(config-if)#ip address 192.168.1.1 255.255.255.0
C. Router(config-vrf)#ip address 192.168.1.1 255.255.255.0
D. Router(config-if)#address-family ipv4
E. Router(config-vrf)#address-family ipv4

Answer: B E

Question 4

What is the data policy in a Cisco SD-WAN deployment?

A. list of ordered statements that define node configurations and authentication used within the SD-WAN overlay
B. Set of statements that defines how data is forwarded based on IP packet information and specific VPNs
C. detailed database mapping several kinds of addresses with their corresponding location
D. group of services tested to guarantee devices and links liveliness within the SD-WAN overlay

Answer: B

Question 5

Refer to the exhibit.

```
SW2# show etherchannel summary
Flags:  D - down        P - bundled in port-channel
        I - stand-alone s - suspended
        H - Hot-standby (LACP only)
        R - Layer3      S - Layer2
        U - in use      f - failed to allocate aggregator
        M - not in use, minimum links not met
        u - unsuitable for bundling
        w - waiting to be aggregated
        d - default port
Number of channel-groups in use: 1
Number of aggregators: 1

Group  Port-channel  Protocol    Ports
------+-------------+-----------+-----------------
1      Pol(SD)         PAgP      Gi0/0(I)  Gi0/1(I)


SW3# show etherchannel summary
Flags:  D - down        P - bundled in port-channel
        I - stand-alone s - suspended
        H - Hot-standby (LACP only)
        R - Layer3      S - Layer2
        U - in use      f - failed to allocate aggregator
        M - not in use, minimum links not met
        u - unsuitable for bundling
        w - waiting to be aggregated
        d - default port
Number of channel-groups in use: 1
Number of aggregators: 1

Group  Port-channel  Protocol    Ports
------+-------------+-----------+-----------------
1      Pol(SD)         LACP      Gi0/0(I)  Gi0/1(I)
```

Which action resolves the EtherChannel issue between SW2 and SW3?

A. Configure switchport mode trunk on SW2
B. Configure switchport nonegotiate on SW3
C. Configure channel-group 1 mode desirable on both interfaces
D. Configure channel-group 5 mode active on both interfaces

Answer: C

Question 6

Refer to the exhibit.

```
  No Hellos (Passive interface)
  Supports Link-local Signaling (LLS)
  ! lines omitted for brevity
GigabitEthernet0/1 is up, line protocol is up
  Internet Address 72.16.30.1/24, Area 0, Attached via Network Statement
  Process ID 1, Router ID 72.16.11.29, Network Type BROADCAST, Cost: 1
  Topology-MTID    Cost    Disabled     Shutdown    Topology Name
       0           1       no           no          Base
  Transmit Delay is 1 sec, State DR, Priority 1
  Designated Router (ID) 172.16.11.29, Interface address 172.16.30.1
  No backup designated router on this network
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    oob-resync timeout 40
    No Hellos (Passive interface)
  Supports Link-local Signaling (LLS)
  ! lines omitted for brevity
GigabitEthernet0/0 is up, line protocol is up
  Internet Address 72.16.11.29/24, Area 0, Attached via Network Statement
  Process ID 1, Router ID 72.16.11.29, Network Type BROADCAST, Cost: 1
  Topology-MTID    Cost    Disabled     Shutdown    Topology Name
       0           1       no           no          Base
  Transmit Delay is 1 sec, State DROTHER, Priority 1
  Designated Router (ID) 172.16.11.27, Interface address 172.16.11.27
  Backup Designated router (ID) 172.16.11.30, Interface address 172.16.11.30
  Timer intervals configured, Hello 10, Dead 40, Wait 40, Retransmit 5
    oob-resync timeout 40
    Hello due in 00:00:07
  Supports Link-local Signaling (LLS)
  ! lines omitted for brevity
```

A network engineer configures OSPF and reviews the router configuration. Which interface or interfaces are able to establish OSPF adjacency?

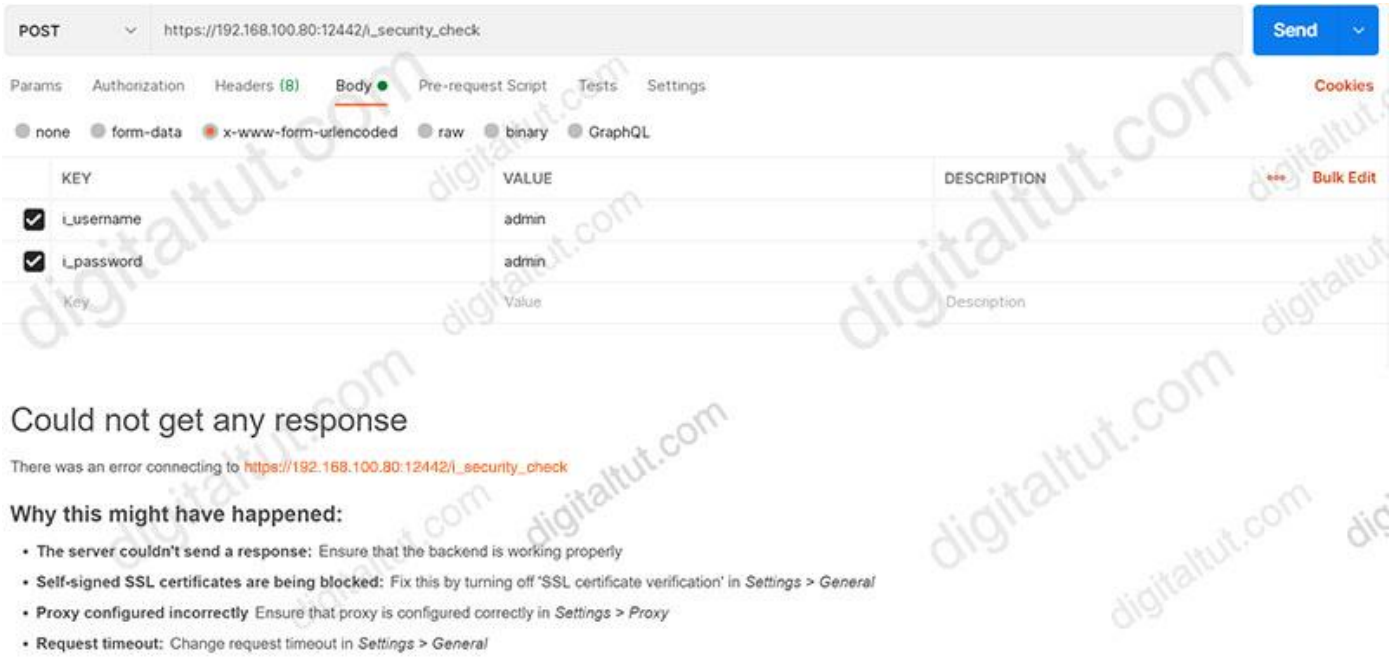
A. GigabitEthemet0/1 and GigabitEthernet0/1.40
B. Gigabit Ethernet0/0 and GigabitEthemet0/1
C. only GigabitEthernet0/0
D. only GigabitEthernet0/1

Answer: C

Question 7

Refer to the exhibit.

```
TYPE     PROT SYSTEM IP   ID        ID       PRIVATE IP                        PORT
PUBLIC IP                          PORT    LOCAL COLOR     PROXY STATE UPTIME    ID
-------------------------------------------------------------------------------
----------
vsmart   dtls 0.0.0.0     100       1       192.168.100.80
12346 10.10.20.70                          12446 default           No     up
0:02:24:09   0
vbond    dtls 0.0.0.0     0         0       192.168.100.81
12346 10.10.20.80                          12346 default           -      up
0:02:24:10   0
vmanage dtls 4.4.4.90     100       0       192.168.100.82
12446 10.10.20.90                          12446 default
```



What step resolves the authentication issue?

A. restart the vsmart host
B. target 192.168.100.82 in the URI
C. change the port to 12446
D. use basic authentication

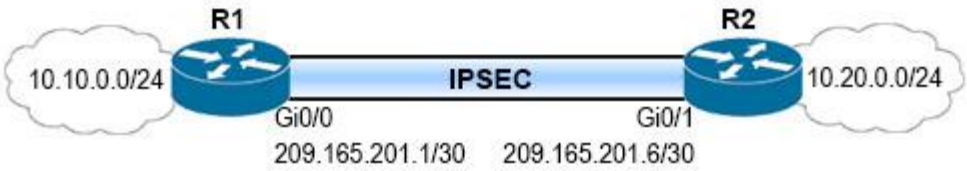
Answer: B

Question 8

Refer to the exhibit.

```
access-list 100 permit gre host 209.165.201.1 host 209.165.201.6

crypto isakmp policy 5
 authentication pre-share
 hash sha256
 encryption aes
 group 14

crypto isakmp key D@t@c3nt3r address 209.165.201.6

crypto ipsec transform-set My_Set esp-aes esp-sha-hmac
 mode transport

crypto map MAP 10 ipsec-isakmp
 set peer 209.165.201.6
 set transform-set My_Set
 match address 100

interface GigabitEthernet0/0
 description outside_interface
 no switchport
 ip address 209.165.201.1 255.255.255.252
 crypto map MAP

interface Tunnel 100
 ip address 192.168.100.1 255.255.255.0
 ip mtu 1400
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.201.6

ip route 10.20.0.0 255.255.255.0 192.168.100.2 Tunnel100
```

```
access-list 100 permit gre host 209.165.201.6 host 209.165.20

crypto isakmp policy 5
 authentication pre-share
 hash sha256
 encryption aes
 group 14

crypto isakmp key D@t@c3nt3r  address 209.165.201.1

crypto ipsec transform-set My_Set esp-aes esp-sha-hmac
 mode transport

crypto map MAP 10 ipsec-isakmp
 set peer 209.165.201.1
 set transform-set My_Set
 match address 100

interface GigabitEthernet0/1
 description outside_interface
 no switchport
 ip address 209.165.201.6 255.255.255.252
 crypto map MAP

interface Tunnel 100
 ip address 192.168.100.2 255.255.255.0
 ip mtu 1400
 tunnel source GigabitEthernet0/0
 tunnel destination 209.165.201.1

ip route 10.10.0.0 255.255.255.0 192.168.100.1 Tunnel100
```



A network engineer must simplify the IPsec configuration by enabling IPsec over GRE using IPsec profiles. Which two configuration changes accomplish this? (Choose two)

A. Apply the crypto map to the tunnel interface and change the tunnel mode to tunnel mode ipsec ipv4
B. Remove all configuration related to crypto map from R1 and R2 and eliminate the ACL 100
C. Remove the crypto map and modify the ACL to allow traffic between 10.10.0.0/24 to 10.20.0.0/24
D. Create an IPsec profile, associate the transform-set, and apply the profile to the tunnel interface

Answer: A D

Question 9

Which encryption hashing algorithm does NTP use for authentication?

A. SSL
B. AES256
C. AES128
D. MD5

Answer: D

Question 10

What is a VPN in a Cisco SD-WAN deployment?

A. virtual channel used to carry control plane information
B. attribute to identify a set of services offered in specific places in the SD-WAN fabric
C. common exchange point between two different services
D. virtualized environment that provides traffic isolation and segmentation in the SD-WAN fabric

Answer: D

Question 11

Drag and drop the characteristic from the left onto the orchestration tools that they describe on the right.



Answer:

Ansible:
+ uses playbooks
+ prodedural

Puppet:
+ uses a pull model
+ declarative

Question 12

Refer to the exhibit.




```
London(config)#interface fa0/1
London(config-if)#switchport trunk encapsulation dot1q
London(config-if)#switchport mode trunk

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

London(config-if)#end
NewYork#show dtp interface fa0/1
DTP information for FastEthernet0/1:
    TOS/TAS/TNS:            ACCESS/AUTO/ACCESS
    TOT/TAT/TNT:            NATIVE/ISL/NATIVE
```

Communication between London and New York is down. Which command set must be applied to resolve this issue?

Option A NewYork(config)#int f0/1 NewYork(config)#switchport nonegotiate NewYork(config)#end NewYork#	**Option B** NewYork(config)#int f0/1 NewYork(config)#switchport trunk encap dot1q NewYork(config)#end NewYork#
Option C NewYork(config)#int f0/1 NewYork(config)#switchport mode dynamic desirable NewYork(config)#end NewYork#	**Option D** NewYork(config)#int f0/1 NewYork(config)#switchport mode trunk NewYork(config)#end NewYork#

A. Option A
B. Option B

C. Option C
D. Option D

Answer: B

Question 13

What is an emulated machine that has dedicated compute, memory, and storage resources and a fully installed operating system?

A. host
B. virtual machine
C. container
D. mainframe

Answer: B

Question 14

Which two methods are used to reduce the AP coverage area? (Choose two)

A. Reduce AP transmit power
B. Increase minimum mandatory data rate
C. Reduce channel width from 40 MHz to 20 MHz
D. Enable Fastlane
E. Disable 2.4 GHz and use only 5 GHz

Answer: A B

Question 15

Which data is properly formatted with JSON?

Option A	**Option B**
{ "name": "Peter" "age": "25" "likesJson": true "characteristics": ["small","strong",18] }	{ "name": Peter, "age": 25, "likesJson": true, "characteristics": ["small","strong","18"], }
Option C	**Option D**

```
{
  "name": "Peter",
  "age": "25",
  "likesJson": true,
  "characteristics": ["small","strong",18],
}
```

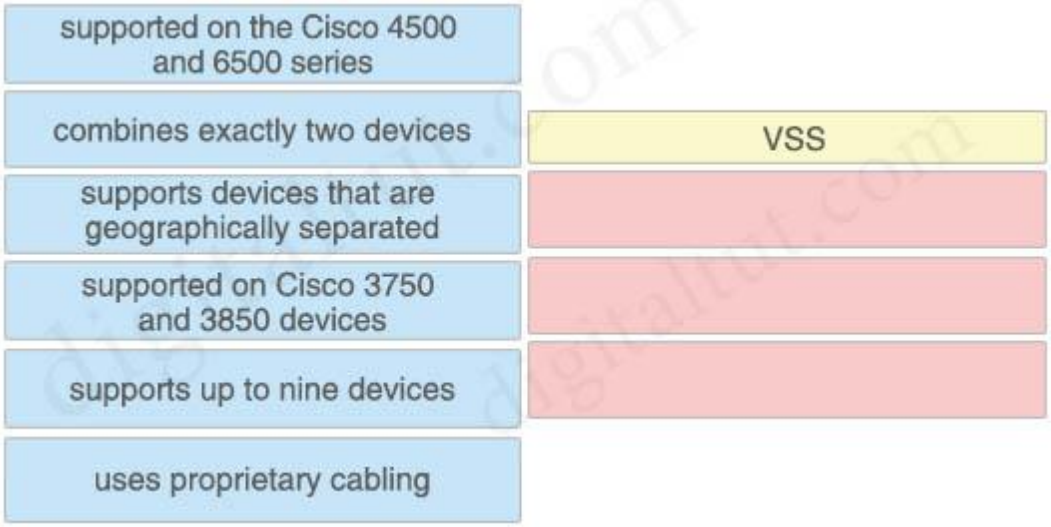
```
{
  "name": "Peter",
  "age": "25",
  "likesJson": true,
  "characteristics": ["small","strong",18]
}
```

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Question 16

Drag and drop the descriptions of the VSS technology from the left to the right. Not all options are used.

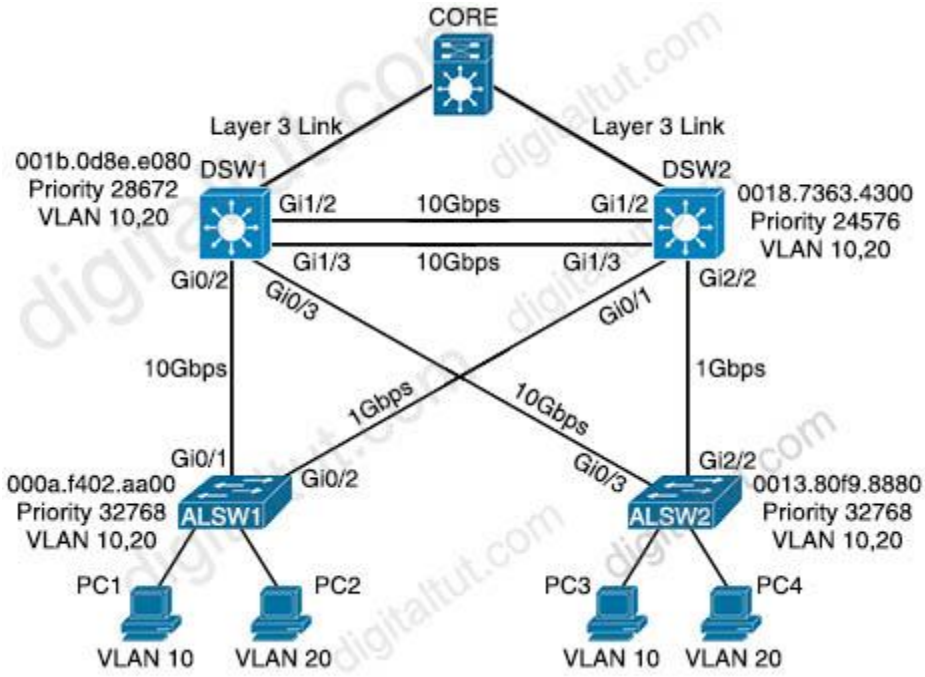


Answer:

VSS:
+ supported on the Cisco 4500 and 6500 series
+ combines exactly two devices
+ supports devices that are geographically separated

Question 17

Refer to the exhibit.



All switches are configured with the default port priority value. Which two commands ensure that traffic from PC1 is forwarded over Gi1/3 trunk port between DWS1 and DSW2? (Choose two)

A. DWS1(config-if)#spanning-tree port-priority 0
B. DSW2(config-if)#spanning-tree port-priority 16
C. DSW1(config-if)#interface gi1/3
D. DSW2(config-if)#interface gi1/3
E. DSW2(config-if)#spanning-tree port-priority 128

Answer: B D

Question 18

In a three-tier hierarchical campus network design, which action is a design best-practice for the core layer?

A. provide QoS prioritization services such as marking, queueing, and classification for critical network traffic
B. provide advanced network security features such as 802. IX, DHCP snooping, VACLs, and port security
C. provide redundant Layer 3 point-to-point links between the core devices for more predictable and faster convergence
D. provide redundant aggregation for access layer devices and first-hop redundancy protocols such as VRRP

Answer: C

Question 19

Which two network problems indicate a need to implement QoS in a campus network? (Choose two)

A. port flapping
B. misrouted network packets
C. excess jitter
D. bandwidth-related packet loss
E. duplicate IP addresses

Answer: C D

Question 20

In a Cisco SD-Access solution, what is the role of the Identity Services Engine?

A. It provides GUI management and abstraction via apps that share context.
B. It is leveraged for dynamic endpoint to group mapping and policy definition.
C. It is used to analyze endpoint to app flows and monitor fabric status.
D. It manages the LISP EID database.

Answer: B

Question 21

A customer has completed the installation of a Wi-Fi 6 greenfield deployment at their new campus. They want to leverage Wi-Fi 6 enhanced speeds on the trusted employee WLAN. To configure the employee WLAN, which two Layer 2 security policies should be used? (Choose two)

A. WPA (AES)
B. WPA2 (AES) + WEP
C. 802.1X
D. OPEN

Answer: C D

Question 22

Which outcome is achieved with this Python code?

```
client.connect (ip, port=22,username=usr,password=pswd)
```

```
stdin,stdout,stderr = client.exec_command('show ip bgp 192.168.10100
bestpath\n')
print(stdout)
```

A. displays the output of the show command in a formatted way
B. connects to a Cisco device using SSH and exports the routing table information
C. connects to a Cisco device using Telnet and exports the routing table information
D. connects to a Cisco device using SSH and exports the BGP table for the prefix

Answer: D

Question 23

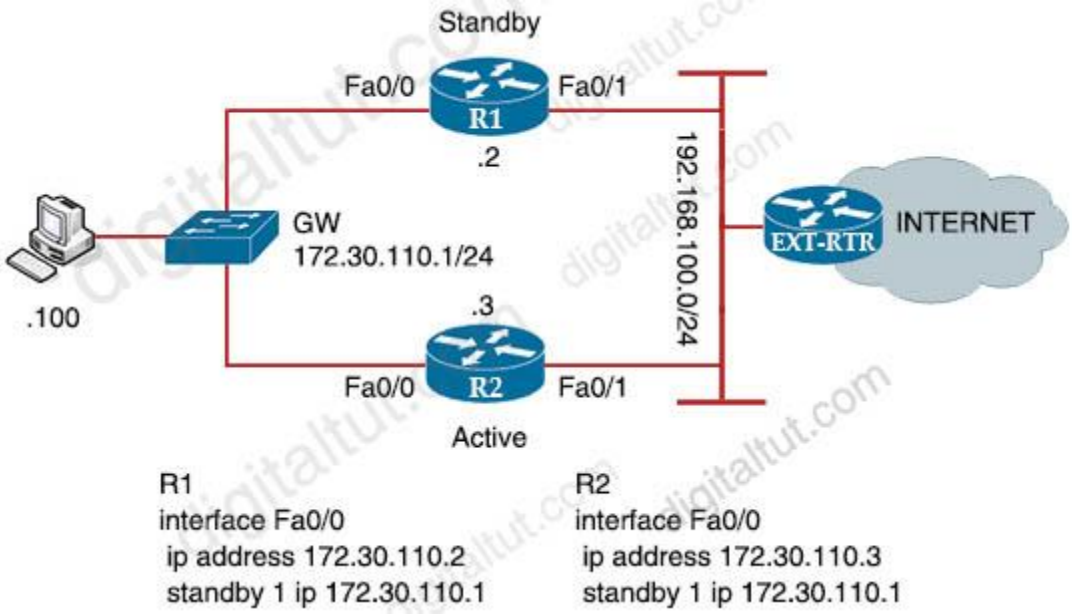
What is YANG used for?

A. scraping data via CLI
B. providing a transport for network configuration data between client and server
C. processing SNMP read-only polls
D. describing data models

Answer: D

Question 24

Refer to the exhibit.



Which configuration change ensures that R1 is the active gateway whenever it is in a functional state for the 172.30.110.0/24 network?

Option A	**Option B**

R1 standby 1 preempt R2 standby 1 priority 90	R1 standby 1 preempt R2 standby 1 priority 100
Option C R2 standby 1 priority 100 standby 1 preempt	**Option D** R2 standby 1 priority 110 standby 1 preempt

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Question 25

Refer to the exhibit.

Person#1: First Name is Johnny Last Name is Table Hobbies are: • Running • Video games Person#2 First Name is Billy Last Name is Smith Hobbies are: • Napping • Reading

Which JSON syntax is derived from this data?

Option A {‘Person’: [{‘First Name’: ‘Johnny’, ‘Last Name’: ‘Table’, ‘Hobbies’: [‘Running’, ‘Video games’]}, {‘First Name’: ‘Billy’, ‘Last Name’: ‘Smith’, ‘Hobbies’: [‘Napping’, ‘Reading’]}]}	**Option B** {[{‘First Name’: ‘Johnny’, ‘Last Name’: ‘Table’, ‘Hobbies’: ‘Running’,’Hobbies’: ‘Video games’}, {‘First Name’: ‘Billy’, ‘Last Name’: ‘Smith’, ‘Hobbies’: ‘Napping’, ‘Hobbies’: Reading’}]}
Option C {‘Person’: [{‘First Name’:’Johnny’, ‘Last Name’: ‘Table’, ‘Hobbies’: ‘Running’, ‘Video games’}, {‘First Name’: ‘Billy’,	**Option D** {[{‘First Name’: ‘Johnny’, ‘Last Name’: ‘Table’, ‘Hobbies’: [‘Running’, ‘Video games’]}, {‘First Name’: ‘Billy’, ‘Last Name’: ‘Smith’, ‘Hobbies’:

‘Last Name’: ‘Smith’, ‘Hobbies’: ‘Napping’, ‘Reading’}]}	[‘Napping’,’Reading’]}]}

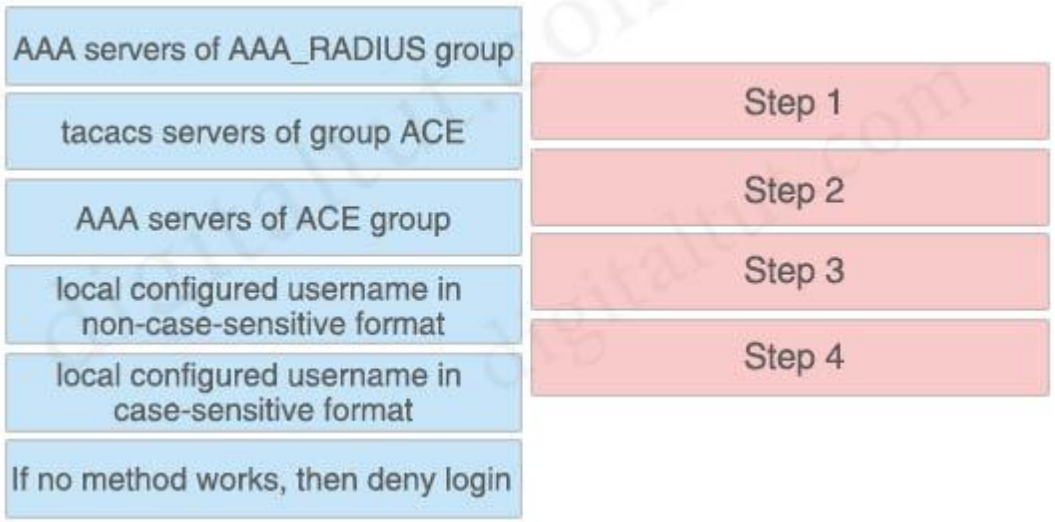
A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Question 26

An engineer creates the configuration below. Drag and drop the authentication methods from the left into the order of priority on the right. Not all options are used.

```
R1#sh run | i aaa
aaa new-model
aaa authentication login default group ACE group AAA_RADIUS local-case
aaa session-id common
R1#
```



Answer:

Step 1: AAA servers of ACE group
Step 2: AAA servers of AAA_RADIUS group
Step 3: local configured username in case-sensitive format
Step 4: If no method works, then deny login

Question 27

Refer to the exhibit.

```
Vlan503 - Group 1
  State is Active
    1 state change, last state change 32w6d
  Virtual IP address is 10.0.3.241
  Active virtual MAC address is 0000.0c07 ac01
    Local virtual MAC address is 0000.0c07.ac01 (v1 default)
  Hello time 3 sec, hold tine 10 sec
    Next hello sent in 0.064 secs
  Preemption enabled
  Active router is local
  Standby router is 10.0.3.242, priority 100 (expires in 10.624 sec)
  Priority 110 (configured 110)
  Group name is "hsrp-Vl503-1" (default)
```

Which two facts does the device output confirm? (Choose two)

A. The device is using the default HSRP hello timer
B. The standby device is configured with the default HSRP priority
C. The device's HSRP group uses the virtual IP address 10.0.3.242.
D. The device is configured with the default HSRP priority
E. The device sends unicast messages to its peers

Answer: A B

Question 28

Based on the output below, which Python code shows the value of the "upTime" key?

```
{
"response": [{
"family": "Routers",
"type": "Cisco ASR 1001-X Router",
"errorCode": null,
"location": null,
"macAddress": "00:c8:8b:80:bb:00",
"hostname": "asr1001-x.abc.inc",
"role": "BORDER ROUTER",
"lastUpdateTime": 1577391299537,
"serialNumber": "FXS1932Q1SE",
"softwareVersion": "16.3.2",
"locationName": null,
"upTime": "49 days, 13:43:44:13",
"lastUpdated": "2019-12-22 16:35:21"
}]
}
```

Option A json_data = response.json() print(json_data[response][0][upTime])	**Option B** json_data = response_json() print(json_data[‘response’][‘family’][‘upTime’])
Option C json_data = response.json() print(json_data[‘response’][0][‘upTime’])	**Option D** json_data = json.loads(response.text) print(json_data[‘response’][‘family’][‘upTime’])

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

Question 29

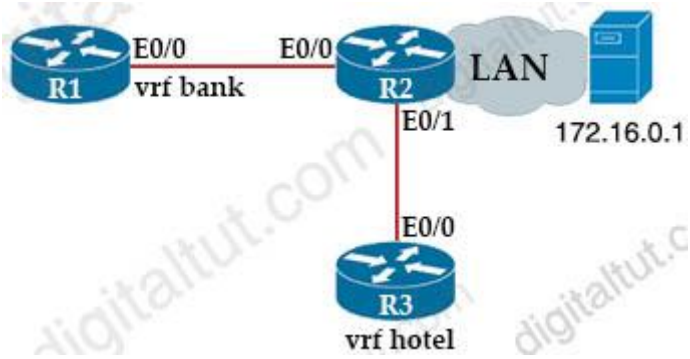
Which two actions, when applied in the LAN network segment, will facilitate Layer 3 CAPWAP discovery for lightweight AP? (Choose two)

A. Utilize DHCP option 17
B. Utilize DHCP option 43
C. Configure WLC IP address on LAN switch
D. Enable port security on the switch port
E. Configure an ip helper-address on the router interface

Answer: B E

Question 30

Refer to the exhibit.



R2 :

```
vrf definition hotel
 address-family ipv4
 exit-address-family
```

```
vrf definition bank
 address-family ipv4
 exit-address-family

interface Ethernet0/0
 vrf forwarding bank
 ip address 172.16.0.4 255.255.0.0

interface Ethernet0/1
 vrf forwarding hotel
 ip address 172.1.0.5 255.255.0.0

router ospf 42 vrf bank
 router-id 1.1.1.1
 network 172.16.0.0 0.0.255.255 area 0

router ospf 43 vrf hotel
 router-id 3.3.3.3
 network 172.16.0.0 0.0.255.255 area 0
```

R1:

```
vrf definition bank
!
 address-family ipv4
 exit-address-family
```

Which configuration must be applied to R1 to enable R1 to reach the server at 172.16.0.1?

Option A interface Ethernet0/0 ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf hotel network 172.16.0.0 0.0.255.255	**Option B** interface Ethernet0/0 vrf forwarding bank ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf bank network 172.16.0.0 0.0.255.255 area 0
Option C interface Ethernet0/0 vrf forwarding hotel ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf hotel network 172.16.0.0 0.0.255.255 area 0	**Option D** interface Ethernet0/0 ip address 172.16.0.7 255.255.0.0 ! router ospf 44 vrf bank network 172.16.0.0 255.255.0.0

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

Question 31

The following system log message is presented after a network administrator configures a GRE tunnel:

```
%TUN-RECURDOWN: Interface Tunnel 0 temporarily disabled due to recursive routing.
```

Why is Tunnel 0 disabled?

A. Because the tunnel cannot reach its tunnel destination
B. Because the best path to the tunnel destination is through the tunnel itself
C. Because dynamic routing is not enabled
D. Because the router cannot recursively identify its egress forwarding interface

Answer: B

Question 32

What is provided by the Stealthwatch component of the Cisco Cyber Threat Defense solution?

A. real-time threat management to stop DDoS attacks to the core and access networks
B. real-time awareness of users, devices and traffic on the network
C. malware control
D. dynamic threat control for web traffic

Answer: B

Question 33

How does Protocol Independent Multicast function?

A. It uses unicast routing information to perform the multicast forwarding function.
B. It uses the multicast routing table to perform the multicast forwarding function.
C. In sparse mode it establishes neighbor adjacencies and sends hello messages at 5-second intervals.
D. It uses broadcast routing information to perform the multicast forwarding function.

Answer: A

Question 34

Under which network conditions is an outbound QoS policy that is applied on a router WAN interface most beneficial?

A. under all network conditions
B. under network convergence conditions
C. under interface saturation conditions
D. under traffic classification and marking conditions

Answer: C

Question 35

Which technology does VXLAN use to provide segmentation for Layer 2 and Layer 3 traffic?

A. bridge domain
B. VLAN
C. VRF
D. VNI

Answer: D

Question 36

A company has an existing Cisco 5520 HA cluster using SSO. An engineer deploys a new single Cisco Catalyst 9800 WLC to test new features. The engineer successfully configures a mobility tunnel between the 5520 cluster and 9800 WLC. Clients connected to the corporate WLAN roam seamlessly between access points on the 5520 and 9800 WLC. After a failure on the primary 5520 WLC, all WLAN services remain functional; however clients cannot roam between the 5520 and 9800 controllers without dropping their connection. Which feature must be configured to remedy the issue?

A. mobility MAC on the 5520 cluster
B. mobility MAC on the 9800 WLC
C. new mobility on the 5520 cluster
D. new mobility on the 9800 WLC

Answer: B

Question 37

What are two methods of ensuring that the multicast RPF check passes without changing the unicast routing table? (Choose two)

A. disabling BGP routing protocol
B. implementing static mroutes
C. disabling the interface of the router back to the multicast source

D. implementing MBGP
E. implementing OSPF routing protocol

Answer: B D

Question 38

What is the result when an active route processor fails in a design that combines NSF with SSO?

A. An NSF-aware device immediately updates the standby route processor RIB without churning the network
B. The standby route processor temporarily forwards packets until route convergence is complete
C. An NSF-capable device immediately updates the standby route processor RIB without churning the network
D. The standby route processor immediately takes control and forwards packets along known routes

Answer: B

Question 39

What is a benefit of a virtual machine when compared with a physical server?

A. Deploying a virtual machine is technically less complex than deploying a physical server.
B. Virtual machines increase server processing performance.
C. The CPU and RAM resources on a virtual machine cannot be affected by other virtual machines.
D. Multiple virtual servers can be deployed on the same physical server without having to buy additional hardware.

Answer: D

Question 40

What is the wireless received signal strength indicator?

A. The value of how strong the wireless signal is leaving the antenna using transmit power, cable loss, and antenna gain
B. The value given to the strength of the wireless signal received compared to the noise level
C. The value of how much wireless signal is lost over a defined amount of distance
D. The value of how strong a tireless signal is receded, measured in dBm

Answer: D

Question 41

Which controller is capable of acting as a STUN server during the onboarding process of Edge devices?

A. vManage
B. vSmart
C. vBond
D. PNP server

Answer: C

Question 42

What is the process for moving a virtual machine from one host machine to another with no downtime?

A. live migration
B. disaster recovery
C. high availability
D. multisite replication

Answer: A

Question 43

What are two features of NetFlow flow monitoring? (Choose two)

A. Can track ingress and egress information
B. Include the flow record and the flow importer
C. Copies all ingress flow information to an interface
D. Does not required packet sampling on interfaces
E. Can be used to track multicast, MPLS, or bridged traffic

Answer: A E

Question 44

Which method should an engineer use to deal with a long-standing contention issue between any two VMs on the same host?

A. Adjust the resource reservation limits
B. Reset the host
C. Reset the VM
D. Live migrate the VM to another host

Answer: D

Question 45

What is the recommended MTU size for a Cisco SD-Access Fabric?

A. 4464
B. 9100
C. 1500
D. 17914

Answer: B

Question 46

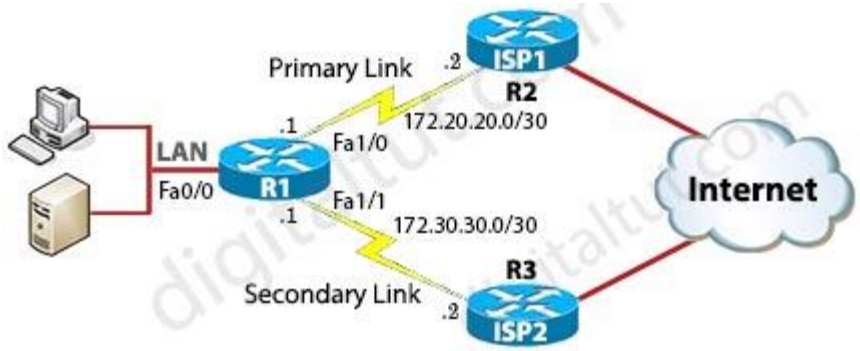
What does the number in an NTP stratum level represent?

A. The number of hops it takes to reach the master time server.
B. The amount of drift between the device clock and true time.
C. The amount of offset between the device clock and true time.
D. The number of hops it takes to reach the authoritative time source.

Answer: D

Question 47

Refer to the exhibit.



```
R1(config)#ip sla 1
R1(config-ip-sla)#icmp-echo 172.20.20.2 source-interface FastEthernet1/0
R1(config-ip-sla-echo)#timeout 5000
R1(config-ip-sla-echo)#frequency 10
R1(config-ip-sla-echo)#threshold 500
R1(config)#ip sla schedule 1 start-time now life forever
R1(config)#track 10 ip sla 1 reachability
R1(config)#ip route 0.0.0.0 0.0.0.0 172.20.20.2
```

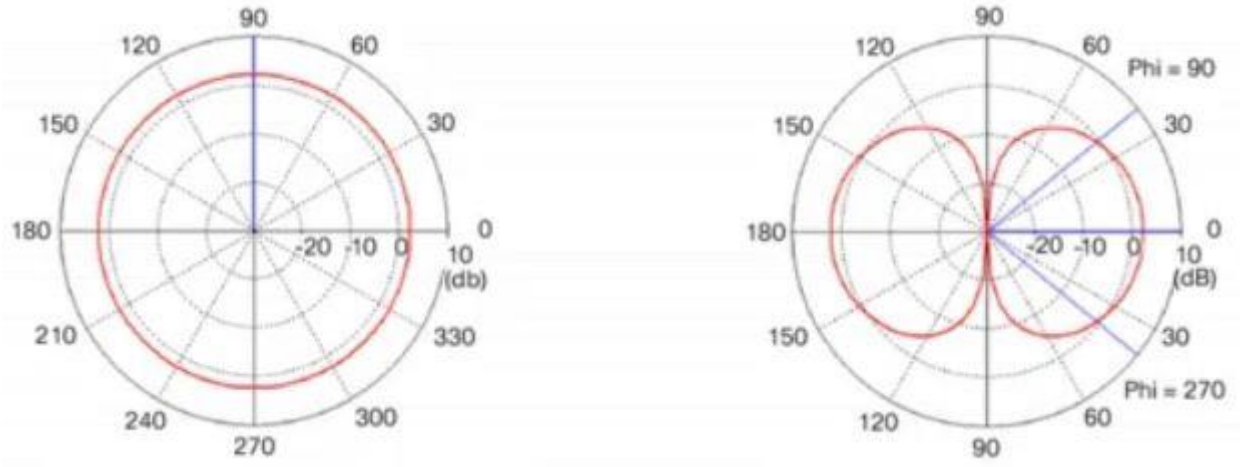
After implementing the configuration 172.20.20.2 stops replaying to ICMP echoes, but the default route fails to be removed. What is the reason for this behavior?

A. The source-interface is configured incorrectly.
B. The destination must be 172.30.30.2 for icmp-echo
C. The default route is missing the track feature
D. The threshold value is wrong

Answer: C

Question 48

Refer to the exhibit.



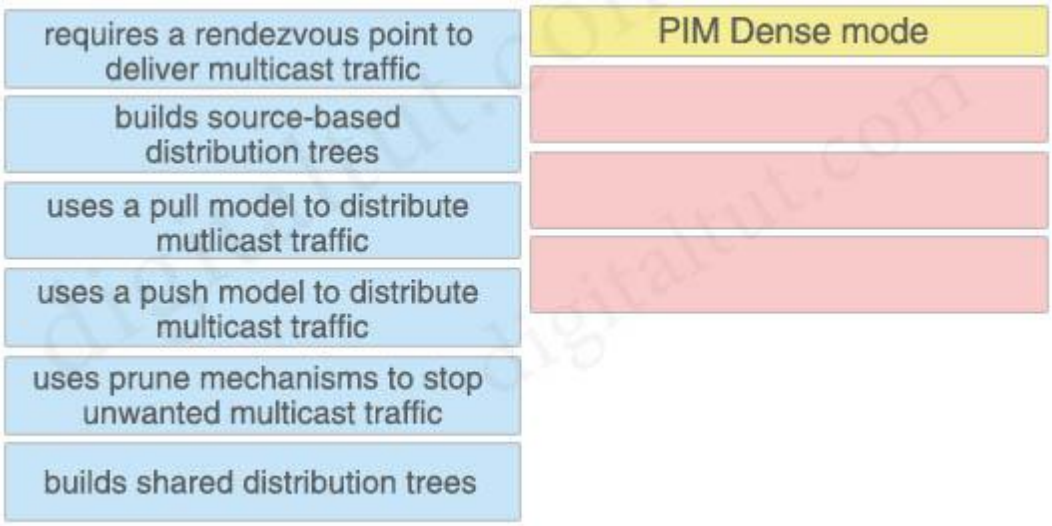
Which type of antenna is show on the radiation patterns?

A. Dipole
B. Yagi
C. Patch
D. Omnidirectional

Answer: A

Question 49

Drag and drop characteristics of PIM dense mode from the left to the right.

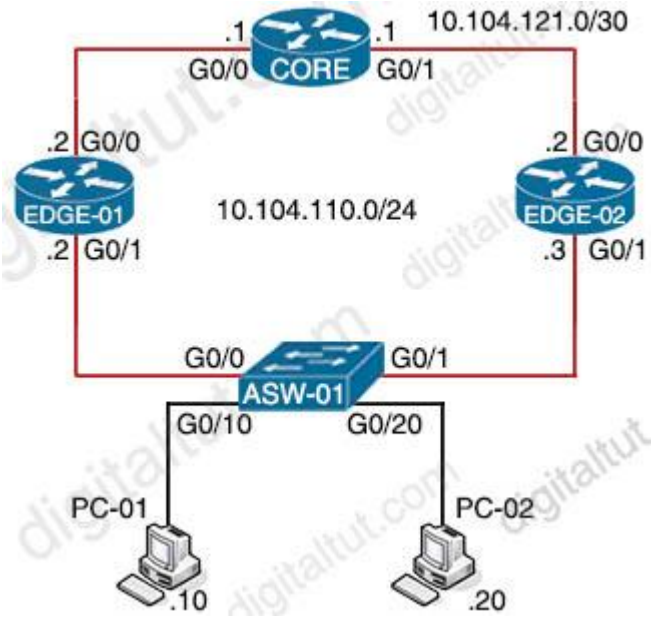


Answer:

PIM Dense Mode:
+ builds source-based distribution trees
+ uses a push model to distribute multicast traffic
+ uses prune mechanisms to stop unwanted multicast traffic

Question 50

Refer to the exhibit.



Edge-01	Edge-02
track 10 interface GigabitEthernet0/0 line-protocol ! interface GigabitEthernet0/1 ip address 10.104.110.2 255.255.255.0 vrrp 10 ip 10.104.110.100 vrrp 10 priority 120	interface GigabitEthernet0/1 ip address 10.104.110.3 255.255.255.0 vrrp 10 ip 10.104.110.100

Object tracking has been configured for VRRP enabled routers Edge-01 and Edge-02. Which commands cause Edge-02 to preempt Edge-01 in the event that interface G0/0 goes down on Edge-01?

Option A	Option B
Edge-01(config)#interface G0/1 Edge-01(config-if)#vrrp 10 track 10 decrement 10	Edge-02(config)#interface G0/1 Edge-02(config-if)#vrrp 10 track 10 decrement 30
Option C	**Option D**
Edge-02(config)#interface G0/1 Edge-02(config-if)#vrrp 10 track 10 decrement 10	Edge-01(config)#interface G0/1 Edge-01(config-if)#vrrp 10 track 10 decrement 30

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Question 51

Which protocol is implemented to establish secure control plane adjacencies between Cisco SD-WAN nodes?

A. IKE
B. DTLS
C. IPsec
D. ESP

Answer: B

Question 52

Refer to the exhibit.

```
flow monitor FLOW-MONITOR-1
 record netflow ipv6 original-input
 exit
!
sampler SAMPLER-1
 mode deterministic 1 out-of 2
 exit
!
ip cef
ipv6 cef
!
interface GigabitEthernet0/0/0
 ipv6 address 2001:DB8:2:ABCD::2/48
 ipv6 flow monitor FLOW-MONITOR-1 sampler SAMPLER-1 input
```

What is the effect of introducing the sampler feature into the Flexible NetFlow configuration on the router?

A. NetFlow updates to the collector are sent 50% less frequently.
B. Every second IPv4 packet is forwarded to the collector for inspection.
C. CPU and memory utilization are reduced when compared with what is required for full NetFlow.
D. The resolution of sampling data increases, but it requires more performance from the router.

Answer: A

Question 53

When does a stack master lose its role?

A. When the priority value of a stack member is changed to a higher value
B. When a switch with a higher priority is added to the stack
C. When the stack master is reset
D. When a stack member fails

Answer: C

Question 54

What is the calculation that is used to measure the radiated power of a signal after it has gone through the radio, antenna cable, and antenna?

A. dBi
B. mW

C. dBm
D. EIRP

Answer: D

New ENCOR Questions

Question 1

After a redundant route processor failure occurs on a Layer 3 device, which mechanism allows for packets to be forwarded from a neighboring router based on the most recent tables?

A. RPVST+
B. RP failover
C. BFD
D. NSF

Answer: D

Question 2

What is the differences between TCAM and the MAC address table?

A. Router prefix lookups happens in CAM. MAC address table lookups happen in TCAM
B. The MAC address table supports partial matches. TCAM requires an exact match
C. The MAC address table is contained in CAM. ACL and QoS information is stored in TCAM
D. TCAM is used to make Layer 2 forwarding decisions. CAM is used to build routing tables

Answer: C

Question 3

Which two southbound interfaces originate from Cisco DNA Center and terminate at fabric underlay switches? (Choose two)

A. UDP 67: DHCP
B. ICMP: Discovery
C. TCP 23: Telnet
D. UDP 162: SNMP
E. UDP 6007: NetFlow

Answer: B D

Question 4

What is the function of a control-plane node in a Cisco SD-Access solution?

A. to connect APs and wireless endpoints to the SD-Access fabric
B. to connect external Layer 3 networks to the SD Access fabric
C. to implement policies and communicate with networks outside the fabric
D. to run a mapping system that manages endpoint to network device relationships

Answer: D

Question 5

Refer to the exhibit. What is the result when a switch that is running PVST+ is added to this network?

```
DSW2#sh spanning-tree vlan 10

VLAN0010
  Spanning tree enabled protocol rstp
  Root ID    Priority 4106
             Address 0018.7363.4300
             This bridge is the root
             Hello Time  2 sec  Max Age 20 sec Forward Delay 15 sec

  Bridge ID  Priority 4106    (priority 4096 sys-id-ext 20)
             Address 0018.7363.4300
             Hello Time  2 sec  Max Age 20 sec Forward Delay 15 sec
             Aging Time 300 sec

Interface        Role  Sts     Cost  Prio.Nbr     Type
---------------- ------- --------- ----- --------- ----------------------
Fa1/0/7          Desg  FWD   2      128.9        P2p Peer(STP)
Fa1/0/10         Desg  FWD   4      128.12       P2p Peer(STP)
Fa1/0/11         Desg  FWD   2      128.13       P2p Peer(STP)
Fa1/0/12         Desg  FWD   2      128.14       P2p Peer(STP)
```

A. Spanning tree is disabled automatically on the network
B. DSW2 operates in Rapid PVST+ and the new switch operates in PVST+
C. Both switches operate in the PVST+ mode
D. Both switches operate in the Rapid PVST+ mode

Answer: B

Question 6

What is a characteristic of a next-generation firewall?

A. required in each layer of the network
B. filters traffic using Layer 3 and Layer 4 information only
C. only required at the network perimeter
D. provides intrusion prevention

Answer: D

Question 7

Which measure is used by an NTP server to indicate its closeness to the authoritative time source?

A. stratum
B. hop count
C. time zone
D. latency

Answer: A

Question 8

Which two resu lts occur if Cisco DNA Center loses connectivity to devices in the SD-Access fabric? (Choose two)

A. All devices reload after detecting loss of connection to Cisco DNA Center
B. Already connected users are unaffected, but new users cannot connect
C. Users lose connectivity
D. Cisco DNA Center is unable to collect monitoring data in Assurance
E. User connectivity is unaffected

Answer: D E

Question 9

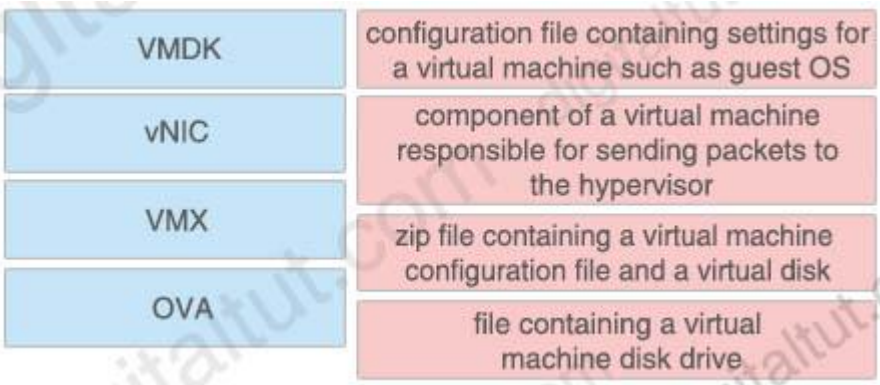
Which two components are supported by LISP? (Choose two)

A. proxy ETR
B. HMAC algorithm
C. route reflector
D. egress tunnel router
E. spoke

Answer: A D

Question 10

Drag and drop the virtual component from the left onto their descriptions on the right.



Answer:

+ configuration file containing settings for a virtual machine such as guest OS: VMX
+ component of a virtual machine responsible for sending packets to the hypervisor: vNIC
+ zip file containing a virtual machine configuration file and a virtual disk: OVA
+ file containing a virtual machine disk drive: VMDK

Question 11

How does EIGRP differ from OSPF?

A. EIGRP is more prone to routing loops than OSPF
B. EIGRP supports equal or unequal path cost, and OSPF supports only equal path cost.
C. EIGRP has a full map of the topology, and OSPF only knows directly connected neighbors
D. EIGRP uses more CPU and memory than OSPF

Answer: B

Question 12

Refer to the exhibit.

```
DSW2#sh spanning-tree vlan 20

VLAN0020
  Spanning tree enabled protocol ieee
  Root ID    Priority  24596
       Address   0018.7363.4300
        Cost      2
       Port      13 (FastEthernet1/0/11)
       Hello Time 2 sec Max Age 20 sec
                     Forward Delay 15 sec

  Bridge ID Priority 28692 (priority 28672 sys-id-ext 20)
       Address  001b.0d8e.e080
       Hello Time  2 sec  Max Age 20 sec
                     Forward Delay 15 sec
       Aging Time 300 sec

Interface  Role  Sts  Cost Prio.Nbr  Type
---------- ----  ---- ---- --------  ----
Fa1/0/7    Desg  FWD  2    128.9     P2p
Fa1/0/10   Desg  FWD  2    128.12    P2p
Fa1/0/11   Root  FWD  2    128.13    P2p
Fa1/0/12   Altn  BLK  2    128.14    P2p
```

What does the output confirm about the switch's spanning tree configuration?

A. The spanning-tree mode stp ieee command was entered on this switch
B. The spanning-tree operation mode for this switch is PVST
C. The spanning-tree operation mode for this switch is IEEE
D. The spanning-tree operation mode for this switch is PVST+

Answer: D

Question 13

A customer has recently implemented a new wireless infrastructure using WLC-5520S at a site directly next to a large commercial airport Users report that they intermittently lose Wi-Fi connectivity, and troubleshooting reveals it is due to frequent channel changes. Which two actions fix this issue? (Choose two)

A. Remove UNII-2 and Extended UNII-2 channels from the 5 GHz channel list
B. Restore the DCA default settings because this automatically avoids channel interference
C. Disable DFS channels to prevent interference with Doppler radar
D. Enable DFS channels because they are immune to radar interference
E. Configure channels on the UNII-2 and the Extended UNII-2 sub-bands of the 5 GHz band only

Answer: A C

Question 14

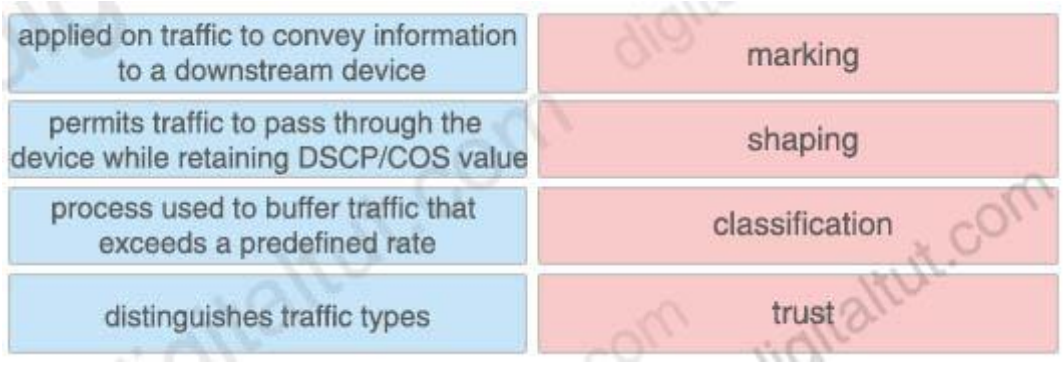
What is a characteristic of para-virtualization?

A. Para-virtualization guest servers are unaware of one another
B. Para-virtualization allows direct access between the guest OS and the hypervisor
C. Para-virtualization lacks support for containers
D. Para-virtualization allows the host hardware to be directly accessed

Answer: D

Question 15

Drag and drop the characteristics from the left onto the QoS components they describe on the right.



Answer:

+ marking: applied on traffic to convey information to a downstream device
+ shaping: process used to buffer traffic that exceeds a predefined rate
+ classification: distinguishes traffic types
+ trust: permits traffic to pass through the device while retaining DSCP/COS value

Question 16

A customer requests a network design that supports these requirements:
* FHRP redundancy
* multivendor router environment
* IPv4 and IPv6 hosts

Which protocol does the design include?

A. GLBP
B. VRRP version 2

C. VRRP version 3
D. HSRP version 2

Answer: C

Question 17

Refer to the exhibit.

```
vlan 222
 remote-span
!
vlan 223
 remote-span
!
monitor session 1 source interface FastEthernet0/1 tx
monitor session 1 source interface FastEthernet0/2 rx
monitor session 1 source interface port-channel 5
monitor session 1 destination remote vlan 222
```

What happens to access interfaces where VLAN 222 is assigned?

A. They are placed into an inactive state
B. A description “RSPAN” is added
C. STP BPDU guard is enabled
D. They cannot provide PoE

Answer: A

Question 18

Which solution do IaaS service providers use to extend a Layer 2 segment across a Layer 3 network?

A. VXLAN
B. VTEP
C. VLAN
D. VRF

Answer: A

Question 19

What is a characteristic of MACsec?

A. 802.1AE provides encryption and authentication services
B. 802.1AE is built between the host and switch using the MKA protocol, which negotiates encryption keys based on the master session key from a successful 802.1X session
C. 802.1AE is built between the host and switch using the MKA protocol using keys generated via the Diffie-Hellman algorithm (anonymous encryption mode)
D. 802.1AE is negotiated using Cisco AnyConnect NAM and the SAP protocol

Answer: B

Question 20

Which unit measures the power of a radio signal with reference to 1 milliwatt?

A. dBw
B. dBi
C. mW
D. dBm

Answer: D

Architecture Questions

https://www.digitaltut.com/architecture-questions

Question 1

A company plans to implement intent-based networking in its campus infrastructure. Which design facilities a migrate from a traditional campus design to a programmer fabric designer?

A. Layer 2 access
B. three-tier
C. two-tier
D. routed access

Answer: C

Question 2

Which benefit is offered by a cloud infrastructure deployment but is lacking in an on-premises deployment?

A. efficient scalability
B. virtualization

C. storage capacity
D. supported systems

Answer: A

Question 3

What is a benefit of deploying an on-premises infrastructure versus a cloud infrastructure deployment?

A. faster deployment times because additional infrastructure does not need to be purchased
B. lower latency between systems that are physically located near each other
C. less power and cooling resources needed to run infrastructure on-premises
D. ability to quickly increase compute power without the need to install additional hardware

Answer: B

Question 4

What are two reasons a company would choose a cloud deployment over an on-prem deployment? (Choose two)

A. Cloud deployments require long implementation times due to capital expenditure processes. OnPrem deployments can be accomplished quickly using operational expenditure processes
B. Cloud costs adjust up or down depending on the amount of resources consumed. On- Prem costs for hardware, power, and space are ongoing regardless of usage
C. In a cloud environment, the company controls technical issues. On-prem environments rely on the service provider to resolve technical issue
D. Cloud resources scale automatically to an increase in demand. On-prem requires additional capital expenditure
E. In a cloud environment, the company is in full control of access to their data. On-prem risks access to data due to service provider outages

Answer: B D

Question 5

In a Cisco Catalyst switch equipped with two supervisor modules an administrator must temporally remove the active supervisor from the chassis to perform hardware maintenance on it. Which mechanism ensure that the active supervisor removal is not disruptive to the network operation?

A. NSF/NSR
B. SSO
C. HSRP
D. VRRP

Answer: B

Etherchannel Questions

https://www.digitaltut.com/etherchannel-questions

Question 1

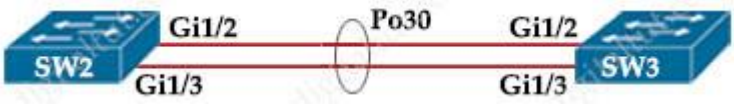
Which PAgP mode combination prevents an Etherchannel from forming?

A. auto/auto
B. desirable/desirable
C. auto/desirable
D. desirable

Answer: A

Question 2

Refer to the exhibit. A port channel is configured between SW2 and SW3. SW2 is not running Cisco operating system. When all physical connections are made, the port channel does not establish. Based on the configuration excerpt of SW3, what is the cause of the problem?



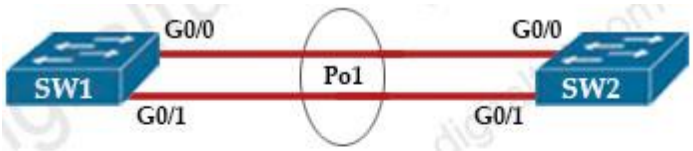

```
interface gi1/2
 channel-group 30 mode desirable
 port-channel load-balance src-ip

interface gi1/3
 channel-group 30 mode desirable
 port-channel load-balance src-ip

interface PortChannel 30
 switchport mode trunk
 switchport encapsulation dot1q
 switchport trunk allowed vlan 10-100
```

A. The port channel on SW2 is using an incompatible protocol
B. The port-channel trunk is not allowing the native VLAN
C. The port-channel should be set to auto
D. The port-channel interface lead balance should be set to src-mac

Answer: A

Question 3

Refer to the exhibit.




```
SW1# show etherchannel summary

! output omitted

Group    Port-channel    Protocol    Ports
--------+---------------+-----------+-----
1        Po1 (SD)            -
```

```
SW2#
08:33:23: %PM-4-ERR_DISABLE: channel-misconfig error detection on Gi0/0, putting Gi0/0 in err-disable state
08:33:23: %PM-4-ERR_DISABLE: channel-misconfig error detection on Gi0/1, putting Gi0/1 in err-disable state
```

After an engineer configures an EtherChannel between switch SW1 and switch SW2, this error message is logged on switch SW2.
Based on the output from SW1 and the log message received on Switch SW2, what action should the engineer take to resolve this issue?

A. Configure the same protocol on the EtherChannel on switch SW1 and SW2.
B. Connect the configuration error on interface Gi0/1 on switch SW1.
C. Define the correct port members on the EtherChannel on switch SW1.
D. Correct the configuration error on interface Gi0/0 switch SW1.

Answer: A

Trunking Questions

https://www.digitaltut.com/trunking-questions

Question 1

Refer to exhibit. VLANs 50 and 60 exist on the trunk links between all switches. All access ports on SW3 are configured for VLAN 50 and SW1 is the VTP server. Which command ensures that SW3 receives frames only from VLAN 50?



A. SW1 (config)#vtp pruning
B. SW3(config)#vtp mode transparent
C. SW2(config)#vtp pruning
D. SW1(config)>vtp mode transparent

Answer: A

Question 2

Refer to the exhibit. SwitchC connects HR and Sales to the Core switch. However, business needs require that no traffic from the Finance VLAN traverse this switch. Which command meets this requirement?

```
SwitchC#show vtp status
VTP Version                     : 2
Configuration Revision          : 0
Maximum VLANs supported locally : 255
Number of existing VLANs        : 8
VTP Operating Mode              : Transparent
VTP Domain Name                 : MyDomain.com
VTP Pruning Mode                : Disabled
VTP V2 Mode                     : Disabled
VTP Traps Generation            : Disabled
MD5 digest                      : 0xCC 0x77 0x02 0x40 0x93 0xB5 0xC1 0xA2
Configuration last modified by 0.0.0.0 at 3-1-93 00:00:00

SwitchC#show vlan brief
VLAN Name                              Status    Ports
---- --------------------------------- --------- -------------------------
----
1    default                           active    Fa0/3, Fa0/4, Fa0/5, Fa0/6
                                                 Fa0/7, Fa0/8, Fa0/9, Fa0/10
                                                 Fa0/11, Fa0/12, Fa0/13,
Fa0/14
                                                 Fa0/15, Fa0/16, Fa0/17,
Fa0/18
                                                 Fa0/19, Fa0/20, Fa0/21,
Fa0/22
                                                 Fa0/23, Fa0/24, Po1
110  Finance                           active
210  HR                                active    Fa0/1
310  Sales                             active    Fa0/2


SwitchC#show int trunk
Port        Mode             Encapsulation  Status        Native vlan
```

```
Gig1/1      on              802.1q         trunking      1
Gig1/2      on              802.1q         trunking      1

Port        Vlans allowed on trunk
Gig1/1      1-1005
Gig1/2      1-1005

Port        Vlans allowed and active in management domain
Gig1/1      1,110,210,310
Gig1/2      1,110,210,310

SwitchC#show run interface port-channel 1
interface Port-channel 1
 description Uplink_to_Core
 switchport mode trunk
```

A. SwitchC(config)#vtp pruning
B. SwitchC(config)#vtp pruning vlan 110
C. SwitchC(config)#interface port-channel 1
SwitchC(config-if)#switchport trunk allowed vlan add 210,310
D. SwitchC(config)#interface port-channel 1
SwitchC(config-if)#switchport trunk allowed vlan remove 110

Answer: D

Question 3

Refer to the exhibit.



Company policy restricts VLAN 10 to be allowed only on SW1 and SW2. All other VLANs can be on all three switches. An administrator has noticed that VLAN 10 has propagated to SW3. Which configuration corrects the issue?

A.
SW2(config)#interface gi1/2
SW2(config)#switchport trunk allowed vlan 10

B.
SW1(config)#interface gi1/1
SW1(config)#switchport trunk allowed vlan 1-9,11-4094

C.
SW2(config)#interface gi1/1
SW2(config)#switchport trunk allowed vlan 10

D.
SW2(config)#interface gi1/2
SW2(config)#switchport trunk allowed vlan 1-9,11-4094

Answer: D

SD-WAN & SD-Access Solutions

https://www.digitaltut.com/sd-wan-sd-access-solutions

Question 1

Which function does a fabric edge node perform in an SD-Access deployment?

A. Connects the SD-Access fabric to another fabric or external Layer 3 networks
B. Connects endpoints to the fabric and forwards their traffic
C. Provides reachability border nodes in the fabric underlay
D. Encapsulates end-user data traffic into LISP.

Answer: B

Question 2

Which action is the vSmart controller responsible for in an SD-WAN deployment?

A. onboard vEdge nodes into the SD-WAN fabric
B. distribute security information for tunnel establishment between vEdge routers
C. manage, maintain, and gather configuration and status for nodes within the SD-WAN fabric
D. gather telemetry data from vEdge routers

Answer: B

Question 3

Which statement about a Cisco APIC controller versus a more traditional SDN controller is true?

A. APIC uses a policy agent to translate policies into instructions
B. APIC supports OpFlex as a Northbound protocol
C. APIC does support a Southbound REST API
D. APIC uses an imperative model

Answer: A

Question 4

What the role of a fusion in an SD-Access solution?

A. provides connectivity to external networks
B. acts as a DNS server
C. performs route leaking between user-defined virtual networks and shared services
D. provides additional forwarding capacity to the fabric

Answer: C

Question 5

Which statement about a fabric access point is true?

A. It is in local mode and must be connected directly to the fabric border node
B. It is in FlexConnect mode and must be connected directly to the fabric border node
C. It is in local mode an must connected directly to the fabric edge switch
D. It is in FlexConnect mode and must be connected directly to the fabric edge switch

Answer: C

Question 6

On which protocol or technology is the fabric data plane based in Cisco SD-Access fabric?

A. LISP
B. IS-IS
C. Cisco TrustSec
D. VXLAN

Answer: D

Question 7

Which description of an SD-Access wireless network infrastructure deployment is true?

A. The access point is part of the fabric underlay
B. The WLC is part of the fabric underlay

C. The access point is part the fabric overlay
D. The wireless client is part of the fabric overlay

Answer: C

Question 8

Which controller is the single plane of management for Cisco SD-WAN?

A. vBond
B. vEdge
C. vSmart
D. vManage

Answer: D

Question 9

When a wired client connects to an edge switch in an SDA fabric, which component decides whether the client has access to the network?

A. control-plane node
B. Identity Service Engine
C. RADIUS server
D. edge node

Answer: B

Question 10

What are two device roles in Cisco SD-Access fabric? (Choose two)

A. core switch
B. vBond controller
C. edge node
D. access switch
E. border node

Answer: C E

SD-WAN & SD-Access Solutions 2

https://www.digitaltut.com/sd-wan-sd-access-solutions-2

Question 1

Which component handles the orchestration plane of the Cisco SD-WAN?

A. vBond
B. vSmart
C. vManage
D. vEdge

Answer: A

Question 2

In an SD-Access solution what is the role of a fabric edge node?

A. to connect external Layer 3- network to the SD-Access fabric
B. to connect wired endpoint to the SD-Access fabric
C. to advertise fabric IP address space to external network
D. to connect the fusion router to the SD-Access fabric

Answer: B

Question 3

What is the role of the vsmart controller in a Cisco SD-WAN environment?

A. IT performs authentication and authorization
B. It manages the control plane.
C. It is the centralized network management system.
D. It manages the data plane.

Answer: B

Question 4

In a Cisco SD-WAN solution, how is the health of a data plane tunnel monitored?

A. with IP SLA
B. ARP probing
C. using BFD
D. with OMP

Answer: C

Question 5

Which technology is used to provide Layer 2 and Layer 3 logical networks in the Cisco SD-Access architecture?

A. underlay network
B. overlay network
C. VPN routing/forwarding
D. easy virtual network

Answer: B

Question 6

In an SD-WAN deployment, which action in the vSmart controller responsible for?

A. handle, maintain, and gather configuration and status for nodes within the SD-WAN fabric
B. onboard vEdge nodes into the SD-WAN fabric
C. gather telemetry data from vEdge routers
D. distribute policies that govern data forwarding performed within the SD-WAN fabric

Answer: D

Question 7

In a Cisco SD-Access fabric, which control plane protocol is used for mapping and resolving endpoints?

A. LISP
B. DHCP
C. SXP
D. VXLAN

Answer: A

Question 8

What is one fact about Cisco SD-Access wireless network deployments?

A. The access point is part of the fabric underlay
B. The WLC is part of the fabric underlay
C. The access point is part the fabric overlay
D. The wireless client is part of the fabric overlay

Answer: C

Question 9

What is the function of the fabric control plane node in a Cisco SD-Access deployment?

A. It is responsible for policy application and network segmentation in the fabric.
B. It performs traffic encapsulation and security profiles enforcement in the fabric.
C. It holds a comprehensive database that tracks endpoints and networks in the fabric.
D. It provides integration with legacy nonfabric-enabled environments.

Answer: C

Question 10

In a Cisco SD-Access wireless architecture, which device manages endpoint ID to Edge Node bindings?

A. fabric control plane node
B. fabric wireless controller
C. fabric border node
D. fabric edge node

Answer: A

SD-WAN & SD-Access Solutions 3

https://www.digitaltut.com/sd-wan-sd-access-solutions-3

Question 1

Which control plane protocol is used between Cisco SD-WAN routers and vSmart controllers?

A. BGP
B. OMP
C. TCP
D. UDP

Answer: B

Question 2

In a wireless Cisco SD-Access deployment, which roaming method is used when a user moves from one access point to another on a different access switch using a single WLC?

A. Layer 3
B. inter-xTR
C. auto anchor
D. fast roam

Answer: B

Question 3

Which protocol is responsible for data plane forwarding in a Cisco SD-Access deployment?

A. VXLAN
B. IS-IS
C. OSPF
D. LISP

Answer: A

Question 4

Which tunneling technique is used when designing a Cisco SD-Access fabric data plane?

A. VXLAN
B. VRF Lite
C. VRF
D. LISP

Answer: A

QoS Questions

https://www.digitaltut.com/qos-questions

Question 1

Which statement about the default QoS configuration on a Cisco switch is true?

A. All traffic is sent through four egress queues
B. Port trust is enabled
C. The Port Cos value is 0
D. The Cos value of each tagged packet is modified

Answer: C

Question 2

Which QoS mechanism will prevent a decrease in TCP performance?

A. Shaper
B. Policer
C. WRED
D. Rate-Limit
E. LLQ
F. Fair-Queue

Answer: C

Question 3

Which QoS component alters a packet to change the way that traffic is treated in the network?

A. Marking
B. Classification
C. Shaping
D. Policing

Answer: A

Question 4

Which marking field is used only as an internal marking within a router?

A. QOS Group
B. Discard Eligiblity
C. IP Precedence
D. MPLS Experimental

Answer: A

Question 5

How does QoS traffic shaping alleviate network congestion?

A. It drops packets when traffic exceeds a certain bitrate.
B. It buffers and queue packets above the committed rate.
C. It fragments large packets and queues them for delivery.
D. It drops packets randomly from lower priority queues.

Answer: B

Question 6

An engineer is describing QoS to a client. Which two facts apply to traffic policing? (Choose two)

A. Policing adapts to network congestion by queuing excess traffic
B. Policing should be performed as close to the destination as possible
C. Policing drops traffic that exceeds the defined rate
D. Policing typically delays the traffic, rather than drops it
E. Policing should be performed as close to the source as possible

Answer: C E

Question 7

During deployment, a network engineer notices that voice traffic is not being tagged correctly as it traverses the network. Which COS to DSCP map must be modified to ensure that voice traffic is treated properly?

A. COS of 5 to DSCP 46
B. COS of 7 to DSCP 48
C. COS of 6 to DSCP 46
D. COS of 3 to DSCP of 26

Answer: A

Question 8

Which QoS queuing method transmits packets out of the interface in the order the packets arrive?

A. custom
B. weighted- fair
C. FIFO
D. priority

Answer: C

Switching Mechanism Questions

https://www.digitaltut.com/switching-mechanism-questions

Question 1

Which statement about Cisco Express Forwarding is true?

A. It uses a fast cache that is maintained in a router data plane
B. It maintains two tables in the data plane the FIB and adjacency table
C. It makes forwarding decisions by a process that is scheduled through the IOS scheduler
D. The CPU of a router becomes directly involved with packet-switching decisions

Answer: B

Question 2

Which two statements about Cisco Express Forwarding load balancing are true? (Choose two)

A. Cisco Express Forwarding can load-balance over a maximum of two destinations
B. It combines the source IP address subnet mask to create a hash for each destination
C. Each hash maps directly to a single entry in the RIB
D. Each hash maps directly to a single entry in the adjacency table
E. It combines the source and destination IP addresses to create a hash for each destination

Answer: D E

Question 3

How are the Cisco Express Forwarding table and the FIB related to each other?

A. The FIB is used to populate the Cisco Express Forwarding table
B. The Cisco Express Forwarding table allows route lookups to be forwarded to the route processor for processing before they are sent to the FIB
C. There can be only one FIB but multiple Cisco Express Forwarding tables on IOS devices

D. Cisco Express Forwarding uses a FIB to make IP destination prefix-based switching decisions

Answer: D

Question 4

What is the difference between a RIB and a FIB?

A. The RIB is used to make IP source prefix-based switching decisions
B. The FIB is where all IP routing information is stored
C. The RIB maintains a mirror image of the FIB
D. The FIB is populated based on RIB content

Answer: D

Question 5

How does the RIB differ from the FIB?

A. The RIB includes many routes to the same destination prefix. The FIB contains only the best route.
B. The FIB maintains network topologies and routing tables. The RIB is a list of routes to particular network destinations.
C. The RIB is used to create network topologies and routing tables. The FIB is a list of routes to particular network destinations.
D. The FIB includes many routes a single destination. The RIB is the best route to a single destination.

Answer: C

Question 6

What is the difference between CEF and process switching?

A. CEF processes packets that are too complex for process switching to manage.
B. CEF is more CPU-intensive than process switching.
C. CEF uses the FIB and the adjacency table to make forwarding decisions, whereas process switching punts each packet.
D. Process switching is faster than CEF.

Answer: C

Question 7

What are two differences between the RIB and the FIB? (Choose two)

A. The FIB is derived from the data plane, and the RIB is derived from the FIB.
B. The RIB is a database of routing prefixes, and the FIB is the information used to choose the egress interface for each packet.
C. FIB is a database of routing prefixes, and the RIB is the information used to choose the egress interface for each packet.
D. The FIB is derived from the control plane, and the RIB is derived from the FIB.
E. The RIB is derived from the control plane, and the FIB is derived from the RIB.

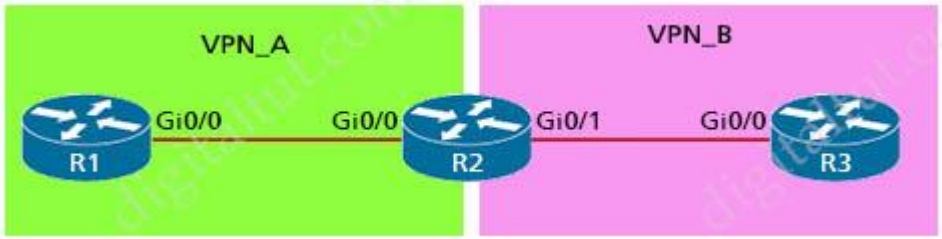
Answer: B E

Virtualization Questions

https://www.digitaltut.com/virtualization-questions

Question 1

Refer to the exhibit. Assuming that R1 is a CE router, which VRF is assigned to Gi0/0 on R1?



A. VRF VPN_B
B. Default VRF
C. Management VRF
D. VRF VPN_A

Answer: B

Question 2

Which statement about route targets is true when using VRF-Lite?

A. When BGP is configured, route targets are transmitted as BGP standard communities
B. Route targets control the import and export of routes into a customer routing table

C. Route targets allow customers to be assigned overlapping addresses
D. Route targets uniquely identify the customer routing table

Answer: B

Question 3

Which two statements about VRF-lite are true? (Choose two)

A. It can increase the packet switching rate
B. It supports most routing protocols, including EIGRP, ISIS, and OSPF
C. It supports MPLS-VRF label exchange and labeled packets
D. It should be used when a customer's router is connected to an ISP over OSPF
E. It can support multiple customers on a single switch

Answer: D E

Question 4

Which statement explains why Type 1 hypervisor is considered more efficient than Type 2 hypervisor?

A. Type 1 hypervisor runs directly on the physical hardware of the host machine without relying on the underlying OS
B. Type 1 hypervisor enables other operating systems to run on it
C. Type 1 hypervisor relies on the existing OS of the host machine to access CPU, memory, storage, and network resources
D. Type 1 hypervisor is the only type of hypervisor that supports hardware acceleration techniques

Answer: A

Question 5

What are two benefits of virtualizing the server with the use of VMs in data center environment? (Choose two)

A. increased security
B. reduced rack space, power, and cooling requirements
C. reduced IP and MAC address requirements
D. speedy deployment
E. smaller Layer 2 domain

Answer: B D

Question 6

Which statement describes the IP and MAC allocation requirements for virtual machines on type 1 hypervisors?

A. Each virtual machine requires a unique IP and MAC addresses to be able to reach to other nodes
B. Each virtual machine requires a unique IP address but shares the MAC address with the physical server
C. Each virtual machines requires a unique IP address but shares the MAC address with the address of the physical server
D. Each virtual machine requires a unique MAC address but shares the IP address with the physical server

Answer: A

Question 7

What is the main function of VRF-lite?

A. To allow devices to use labels to make Layer 2 Path decisions
B. To segregate multiple routing tables on a single device
C. To connect different autonomous systems together to share routes
D. To route IPv6 traffic across an IPv4 backbone

Answer: B

Question 8

Refer to the exhibit. You have just created a new VRF on PE3. You have enabled debug ip bgp vpnv4 unicast updates on PE1, and you can see the route in the debug, but not in the BGP VPNv4 table. Which two statements are true? (Choose two)

```
*Jun19 11:12: BGP(4):10.1.1.2 rcvd UPDATE w/ attr:nexthop 10.1.1.2, origin ?, localpref 100,metric 0,extended community RT:999:999
*Jun19 11:12: BGP(4):10.1.1.2 rcvd 999:999:192.168.1.99/32,label 29–DENIED due to:extended community not supported
```

A. VPNv4 is not configured between PE1 and PE3
B. address-family ipv4 vrf is not configured on PE3
C. After you configure route-target import 999:999 for a VRF on PE3, the route will be accepted
D. PE1 will reject the route due to automatic route filtering

E. After you configure route-target import 999:999 for a VRF on PE1, the route will be accepted

Answer: D E

Question 9

What are two reasons why broadcast radiation is caused in the virtual machine environment? (Choose two)

A. vSwitch must interrupt the server CPU to process the broadcast packet
B. The Layer 2 domain can be large in virtual machine environments
C. Virtual machines communicate primarily through broadcast mode
D. Communication between vSwitch and network switch is broadcast based
E. Communication between vSwitch and network switch is multicast based

Answer: A B

Question 10

Which two entities are Type 1 hypervisors? (Choose two)

A. Oracle VM VirtualBox
B. Microsoft Hyper-V
C. VMware server
D. VMware ESX
E. Microsoft Virtual PC

Answer: B D

Virtualization Questions 2

https://www.digitaltut.com/virtualization-questions-2

Question 1

A server running Linux is providing support for virtual machines along with DNS and DHCP services for a small business. Which technology does this represent?

A. container
B. Type 1 hypervisor
C. hardware pass-through
D. Type 2 hypervisor

Answer: D

Question 2

Which two actions provide controlled Layer 2 network connectivity between virtual machines running on the same hypervisor? (Choose two)

A. Use a single trunk link to an external Layer2 switch
B. Use a virtual switch provided by the hypervisor
C. Use VXLAN fabric after installing VXLAN tunnelling drivers on the virtual machines
D. Use a single routed link to an external router on stick
E. Use a virtual switch running as a separate virtual machine

Answer: B E

Question 3

What is a Type 1 hypervisor?

A. runs directly on a physical server and depends on a previously installed operating system
B. runs directly on a physical server and includes its own operating system
C. runs on a virtual server and depends on an already installed operating system
D. run on a virtual server and includes its own operating system

Answer: B

Question 4

Which element enables communication between guest VMs within a virtualized environment?

A. vSwitch
B. virtual router
C. hypervisor
D. pNIC

Answer: A

Question 5

What is a benefit of using a Type 2 hypervisor instead of a Type 1 hypervisor?

A. ability to operate on hardware that is running other OSs
B. improved security because the underlying OS is eliminated
C. improved density and scalability
D. better application performance

Answer: A

Question 6

Refer to the exhibit.

```
interface Vlan10
 ip vrf forwarding Customer1
 ip address 192.168.1.1 255.255.255.0
!
interface Vlan20
 ip vrf forwarding Customer2
 ip address 172.16.1.1 255.255.255.0
!
interface Vlan30
 ip vrf forwarding Customer3
 ip address 10.1.1.1 255.255.255.0
```

Which configuration allows Customer2 hosts to access the FTP server of Customer1 that has the IP address of 192.168.1.200?

A.
ip route vrf Customer1 172.16.1.0 255.255.255.0 172.16.1.1 global
ip route vrf Customer2 192.168.1.200 255.255.255.255 192.168.1.1 global
ip route 192.168.1.0 255.255.255.0 Vlan10
ip route 172.16.1.0 255.255.255.0 Vlan20

B.
ip route vrf Customer1 172.16.1.0 255.255.255.0 172.16.1.1 Customer2
ip route vrf Customer2 192.168.1.200 255.255.255.255 192.168.1.1 Customer1

C.
ip route vrf Customer1 172.16.1.0 255.255.255.0 172.16.1.1 Customer1
ip route vrf Customer2 192.168.1.200 255.255.255.255 192.168.1.1 Customer2

D.
ip route vrf Customer1 172.16.1.1 255.255.255.255 172.16.1.1 global
ip route vrf Customer2 192.168.1.200 255.255.255.0 192.168.1.1 global
ip route 192.168.1.0 255.255.255.0 Vlan10
ip route 172.16.1.0 255.255.255.0 Vlan20

Answer: A

Question 7

A customer has deployed an environment with shared storage to allow for the migration of virtual machines between servers with dedicated operating systems that provide the virtualization platform. What is this operating system described as?

A. hosted virtualization
B. type 1 hypervisor
C. container oriented
D. decoupled

Answer: A

LISP & VXLAN Questions

https://www.digitaltut.com/lisp-vxlan-questions

Question 1

Which LISP device is responsible for publishing EID-to-RLOC mappings for a site?

A. ETR
B. MS
C. ITR
D. MR

Answer: A

Question 2

Which LISP infrastructure device provides connectivity between non-LISP sites and LISP sites by receiving non-LISP traffic with a LISP site destination?

A. PETR
B. PITR
C. map resolver
D. map server

Answer: B

Question 3

Into which two pieces of information does the LISP protocol split the device identity? (Choose two)

A. Routing Locator
B. Endpoint Identifier
C. Resource Location
D. Enterprise Identifier
E. LISP ID
F. Device ID

Answer: A B

Question 4

Refer to the exhibit. Which LISP component do routers in the public IP network use to forward traffic between the two networks?



A. EID
B. RLOC
C. map server
D. map resolver

Answer: B

Question 5

Which statement about VXLAN is true?

A. VXLAN uses TCP 35 the transport protocol over the physical data center network
B. VXLAN extends the Layer 2 Segment ID field to 24-bits, which allows up to 4094 unique Layer 2 segments over the same network
C. VXLAN encapsulates a Layer 2 frame in an IP-UDP header, which allows Layer 2 adjacency across router boundaries
D. VXLAN uses the Spanning Tree Protocol for loop prevention

Answer: C

Question 6

Which two namespaces does the LISP network architecture and protocol use? (Choose two)

A. TLOC
B. RLOC
C. DNS
D. VTEP
E. EID

Answer: B E

Question 7

Which action is a function of VTEP in VXLAN?

A. tunneling traffic from IPv6 to IPv4 VXLANs
B. allowing encrypted communication on the local VXLAN Ethernet segment
C. encapsulating and de-encapsulating VXLAN Ethernet frames
D. tunneling traffic from IPv4 to IPv6 VXLANs

Answer: C

Question 8

What function does VXLAN perform in an SD-Access deployment?

A. policy plane forwarding
B. control plane forwarding
C. data plane forwarding
D. systems management and orchestration

Answer: C

Question 9

Which two LISP infrastructure elements are needed to support LISP to non -LISP internetworking? (Choose two)

A. PETR
B. PITR
C. MR
D. MS
E. ALT

Answer: A C

Question 10

What is the purpose of the LISP routing and addressing architecture?

A. It creates head-end replication used to deliver broadcast and multicast frames to the entire network.
B. It allows LISP to be applied as a network visualization overlay though encapsulation.
C. It allows multiple instances of a routing table to co-exist within the same router.
D. It creates two entries for each network node, one for its identity and another for its location on the network.

Answer: D

Question 11

Which entity is responsible for maintaining Layer 2 isolation between segments in a VXLAN environment?

A. switch fabric
B. host switch
C. VTEP
D. VNID

Answer: D

EIGRP & OSPF Questions

https://www.digitaltut.com/eigrp-ospf-questions

Question 1

Which OSPF network types are compatible and allow communication through the two peering devices?

A. broadcast to nonbroadcast
B. point-to-multipoint to nonbroadcast
C. broadcast to point-to-point
D. point-to-multipoint to broadcast

Answer: A

Question 2

Based on this interface configuration, what is the expected state of OSPF adjacency?

```
R1
interface GigabitEthernet0/1
 ip address 192.0.2.1 255.255.255.252
 ip ospf 1 area 0
 ip ospf hello-interval 2
 ip ospf cost 1

R2
interface GigabitEthernet0/1
 ip address 192.0.2.2 255.255.255.252
 ip ospf 1 area 0
 ip ospf cost 500
```

A. Full on both routers
B. not established
C. 2WAY/DROTHER on both routers
D. FULL/BDR on R1 and FULL/BDR on R2

Answer: B

Question 3

Refer to the exhibit. Which statement about the OPSF debug output is true?

```
R1#debug ip ospf hello
R1#debug condition interface fa0/1
Condition 1 set
```

A. The output displays all OSPF messages which router R1 has sent or received on interface Fa0/1
B. The output displays all OSPF messages which router R1 has sent or received on all interfaces
C. The output displays OSPF hello messages which router R1 has sent or received on interface Fa0/1
D. The output displays OSPF hello and LSACK messages which router R1 has sent or received

Answer: C

Question 4

Which EIGRP feature allows the use of leak maps?

A. offset-list
B. neighbor
C. address-family
D. stub

Answer: D

Question 5

Which two statements about EIGRP load balancing are true? (Choose two)

A. EIGRP supports 6 unequal-cost paths
B. A path can be used for load balancing only if it is a feasible successor
C. EIGRP supports unequal-cost paths by default
D. Any path in the EIGRP topology table can be used for unequal-cost load balancing
E. Cisco Express Forwarding is required to load-balance across interfaces

Answer: A B

Question 6

Which statement about LISP encapsulation in an EIGRP OTP implementation is true?

A. OTP uses LISP encapsulation for dynamic multipoint tunneling
B. OTP maintains the LISP control plane
C. OTP uses LISP encapsulation to obtain routes from neighbors
D. LISP learns the next hop

Answer: A

Question 7

Which reason could cause an OSPF neighborship to be in the EXSTART/EXCHANGE state?

A. Mismatched OSPF network type
B. Mismatched areas
C. Mismatched MTU size
D. Mismatched OSPF link costs

Answer: C

Question 8

Which feature is supported by EIGRP but is not supported by OSPF?

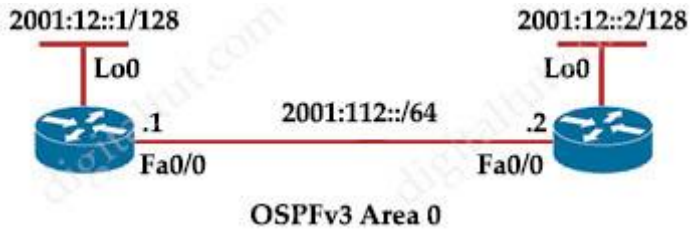
A. route summarization
B. equal-cost load balancing

C. unequal-cost load balancing
D. route filtering

Answer: C

Question 9

Refer to the exhibit. Which IPv6 OSPF network type is applied to interface Fa0/0 of R2 by default?



A. broadcast
B. Ethernet
C. multipoint
D. point-to-point

Answer: A

Question 10

In OSPF, which LSA type is responsible for pointing to the ASBR router?

A. type 1
B. type 2
C. type 3
D. type 4

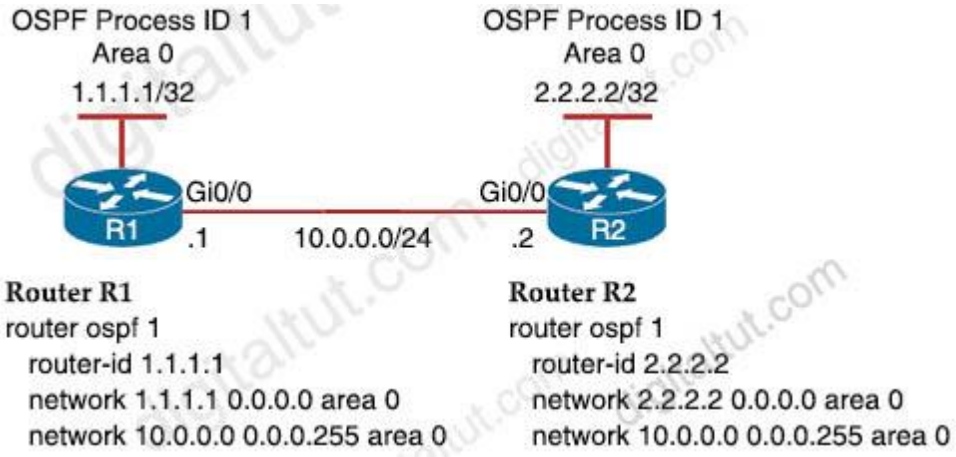
Answer: D

EIGRP & OSPF Questions 2

https://www.digitaltut.com/eigrp-ospf-questions-2

Question 1

Refer to the exhibit.



A network engineer is configuring OSPF between router R1 and router R2. The engineer must ensure that a DR/BDR election does not occur on the Gigabit Ethernet interfaces in area 0. Which configuration set accomplishes this goal?

A.
R1(config-if)#interface Gi0/0
R1(config-if)#ip ospf network point-to-point

R2(config-if)#interface Gi0/0
R2(config-if)#ip ospf network point-to-point

B.
R1(config-if)#interface Gi0/0
R1(config-if)#ip ospf network broadcast

R2(config-if)#interface Gi0/0
R2(config-if)#ip ospf network broadcast

C.
R1(config-if)#interface Gi0/0
R1(config-if)#ip ospf database-filter all out

R2(config-if)#interface Gi0/0
R2(config-if)#ip ospf database-filter all out

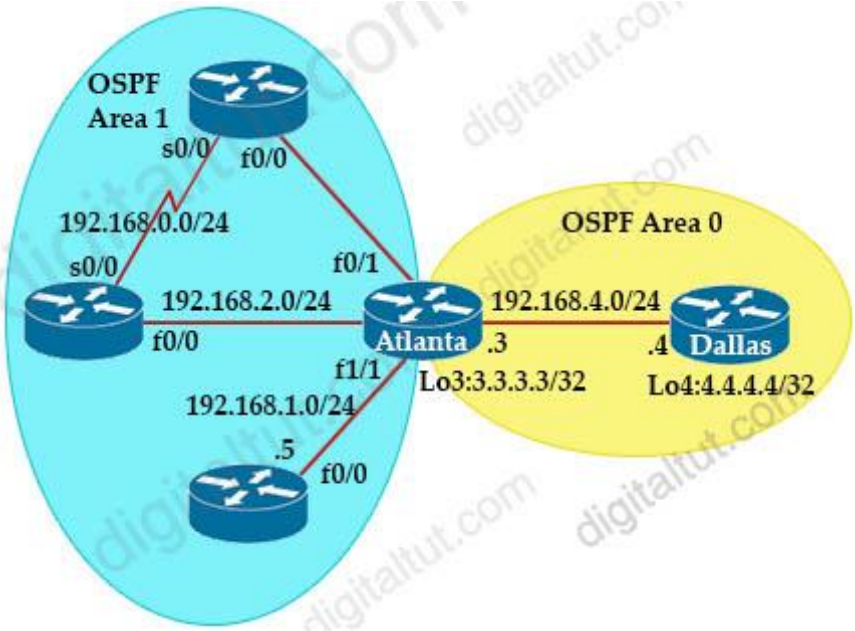
D.
R1(config-if)#interface Gi0/0
R1(config-if)#ip ospf priority 1

R2(config-if)#interface Gi0/0
R2(config-if)#ip ospf priority 1

Answer: A

Question 2

Refer to the exhibit.




```
Dallas#show ip route ospf
    3.0.0.0/32 i subnetted, 1 subnets
O      3.3.3.3 [110/40001] via 192.168.4.3, 00:33:32, FastEthernet0/0
O IA 192.168.0.0/24 [110/145535] via 192.168.4.3, 00:33:32, FastEthernet0/0
O IA 192.168.1.0/24 [110/80000] via 192.168.4.3, 00:33:32, FastEthernet0/0
O IA 192.168.2.0/24 [110/80000] via 192.168.4.3, 00:33:32, FastEthernet0/0
O IA 192.168.3.0/24 [110/44000] via 192.168.4.3, 00:33:32, FastEthernet0/0
```

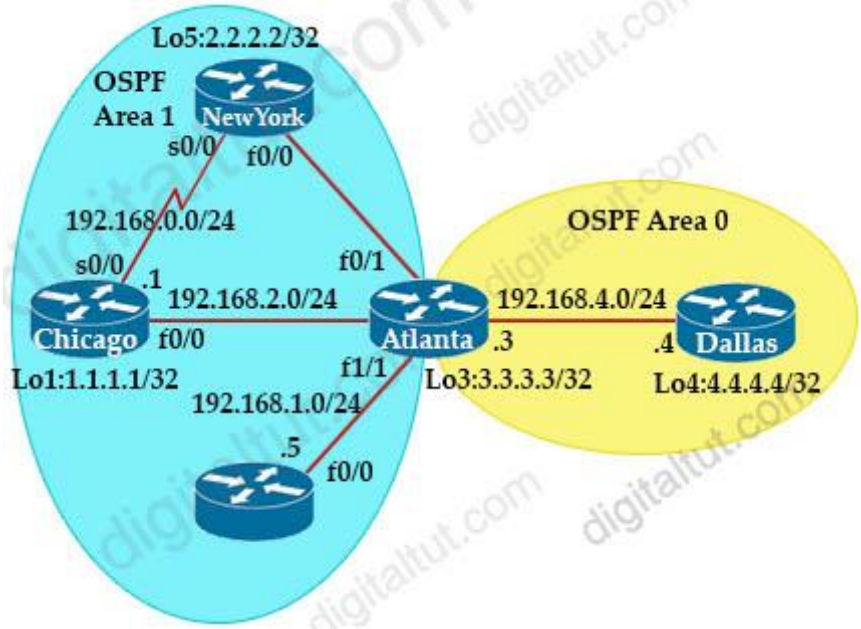
Which command when applied to the Atlanta router reduces type 3 LSA flooding into the backbone area and summarizes the inter-area routes on the Dallas router?

A. Atlanta(config-route)#area 0 range 192.168.0.0 255.255.252.0
B. Atlanta(config-route)#area 1 range 192.168.0.0 255.255.252.0
C. Atlanta(config-route)#area 0 range 192.168.0.0 255.255.248.0
D. Atlanta(config-route)#area 1 range 192.168.0.0 255.255.248.0

Answer: B

Question 3

Refer the exhibit.




```
Chicago#show ip ospf nei

Neighbor ID  Pri   State      Dead Time  Address         Interface
3.3.3.3        1   FULL/BDR   00:00:35   192.168.2.3     FastEthernet0/0
2.2.2.2        0   FULL/ -    00:00:35   192.168.0.2     Serial0/0

Chicago#show ip ospf int bri
Interface  PID Area      IP Address/Mask  Cost   State Nbrs F/C
Fa0/0      1   1         192.168.2.1/24   40444  DR    1/1
Se0/0      1   1         192.168.0.1/24   65535  P2P   1/1
Chicago#
```

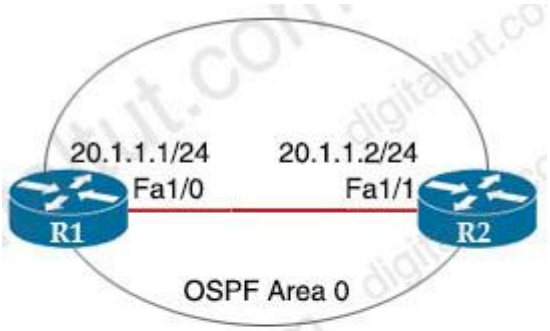
Which router is the designated router on the segment 192.168.0.0/24?

A. Router Chicago because it has a lower router ID
B. Router NewYork because it has a higher router ID
C. This segment has no designated router because it is a nonbroadcast network type.
D. This segment has no designated router because it is a p2p network type.

Answer: D

Question 4

Refer to the exhibit.




```
hostname R1
router ospf 1
network 0.0.0.0 255.255.255.255 area 0
auto-cost reference-bandwith 1000
!
hostname R2
router ospf 2
network 20.0.0.0 0.0.0.255 area 0
```

Which command must be applied to R2 for an OSPF neighborship to form?

A. network 20.1.1.2 0.0.255.255 area 0
B. network 20.1.1.2 255.255.255.255 area 0
C. network 20.1.1.2 0.0.0.0 area 0
D. network 20.1.1.2 255.255.0.0. area 0

Answer: C

Question 5

Which feature of EIGRP is not supported in OSPF?

A. load balancing of unequal-cost paths
B. load balance over four equal-costs paths
C. uses interface bandwidth to determine best path
D. per-packet load balancing over multiple paths

Answer: A

Question 6

Refer to the exhibit. An engineer attempts to configure a router on a stick to route packets between Clients, Servers, and Printers; however, initial tests show that this configuration is not working. Which command set resolves this issue?



Option A router eigrp 1 network 10.0.0.0 255.0.0.0 network 172.16.0.0 255.255.0.0 network 192.168.1.0 255.255.0.0	**Option B** router eigrp 1 network 10.0.0.0 255.255.255.0 network 172.16.0.0 255.255.255.0 network 192.168.1.0 255.255.255.0
Option C interface Vlan10 no ip vrf forwarding Clients ! interface Vlan20 no ip vrf forwarding Servers ! interface Vlan30 no ip vrf forwarding Printers	**Option D** interface Vlan10 no ip vrf forwarding Clients ip address 192.168.1.2 255.255.255.0 ! interface Vlan20 no ip vrf forwarding Servers ip address 172.16.1.2 255.255.255.0 ! interface Vlan30 no ip vrf forwarding Printers ip address 10.1.1.2 255.255.255.0

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

Question 7

How does the EIGRP metric differ from the OSPF metric?

A. The EIGRP metric is calculated based on bandwidth only. The OSPF metric is calculated on delay only.
B. The EIGRP metric is calculated based on delay only. The OSPF metric is calculated on bandwidth and delay.
C. The EIGRP metric is calculated based on hop count and bandwidth. The OSPF metric is calculated on bandwidth and delay.
D. The EIGRP metric is calculated based on bandwidth and delay. The OSPF metric is calculated on bandwidth only.

Answer: D

BGP Questions

https://www.digitaltut.com/bgp-questions-7

Question 1

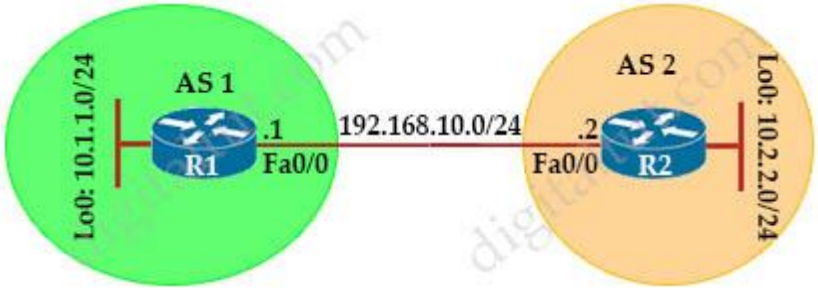
A local router shows an EBGP neighbor in the Active state. Which statement is true about the local router?

A. The local router has active prefix in the forwarding table firom the neighboring router
B. The local router has BGP passive mode configured for the neighboring router
C. The local router is attempting to open a TCP session with the neighboring router.
D. The local router is receiving prefixes from the neighboring router and adding them in RIB-IN

Answer: C

Question 2

Refer to the exhibit. Which configuration establishes EBGP neighborship between these two directly connected neighbors and exchanges the loopback network of the two routers through BGP?



A. R1(config)#router bgp 1
R1(config-router)#neighbor 192.168.10.2 remote-as 2
R1(config-router)#network 10.1.1.0 mask 255.255.255.0

R2(config)#router bgp 2
R2(config-router)#neighbor 192.168.10.1 remote-as 1
R2(config-router)#network 10.2.2.0 mask 255.255.255.0

B. R1(config)#router bgp 1
R1(config-router)#neighbor 10.2.2.2 remote-as 2
R1(config-router)#network 10.1.1.0 mask 255.255.255.0

R2(config)#router bgp 2
R2(config-router)#neighbor 10.1.1.1 remote-as 1
R2(config-router)#network 10.2.2.0 mask 255.255.255.0

C. R1(config)#router bgp 1
R1(config-router)#neighbor 192.168.10.2 remote-as 2
R1(config-router)#network 10.0.0.0 mask 255.0.0.0

R2(config)#router bgp 2
R2(config-router)#neighbor 192.168.10.1 remote-as 1
R2(config-router)#network 10.0.0.0 mask 255.0.0.0

D. R1(config)#router bgp 1
R1(config-router)#neighbor 10.2.2.2 remote-as 2
R1(config-router)#neighbor 10.2.2.2 update-source lo0
R1(config-router)#network 10.1.1.0 mask 255.255.255.0

R2(config)#router bgp 2
R2(config-router)#neighbor 10.1.1.1 remote-as 1
R2(config-router)#neighbor 10.1.1.1 update-source lo0
R2(config-router)#network 10.2.2.0 mask 255.255.255.0

Answer: A

Question 3

Refer to the exhibit. Which IP address becomes the next active next hop for 192.168.102.0/24 when 192.168.101.2 fails?

```
R1#show ip bgp
BGP table version is 32, local router ID is 192.168.101.5
Status codes: s suppressed, d damped, h history, * valid, > best, i -
internal,
              r RIB-failure, S Stale
Origin codes: i - IGP, e - EGP, ? - incomplete

   Network             Next Hop         Metric LocPrf Weight Path
*  192.168.102.0       192.168.101.18       80             0 64517 i
*                       192.168.101.14       80     80      0 64516 i
```

```
*                      192.168.101.10                         0 64515 64515 i
*>                     192.168.101.2                          0 64513 i
*                      192.168.101.6            80            0 64514 64514 i
```

A. 192.168.101.18
B. 192.168.101.6
C. 192.168.101.10
D. 192.168.101.14

Answer: A

Question 4

What is the correct EBGP path attribute list, ordered from most preferred to the least preferred, that the BGP best-path algorithm uses?

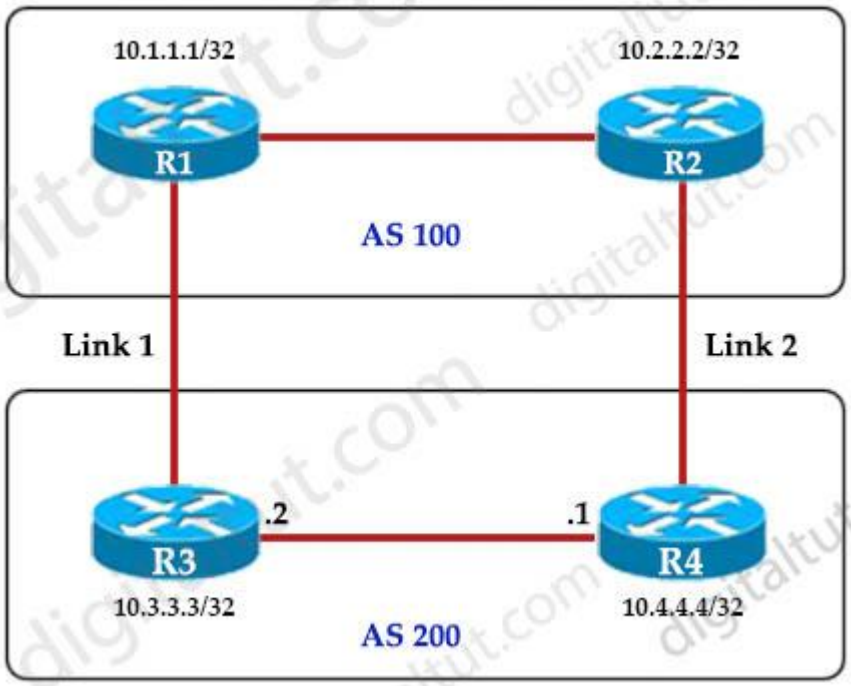
A. weight, AS path, local preference, MED
B. weight, local preference, AS path, MED
C. local preference, weight, AS path, MED
D. local preference, weight, MED, AS path

Answer: B

Question 5

Refer to the exhibit.

An engineer must ensure that all traffic leaving AS 200 will choose Link 2 as the exit point. Assuming that all BGP neighbor relationships have been formed and that the attributes have not been changed on any of the routers, which configuration accomplish task?

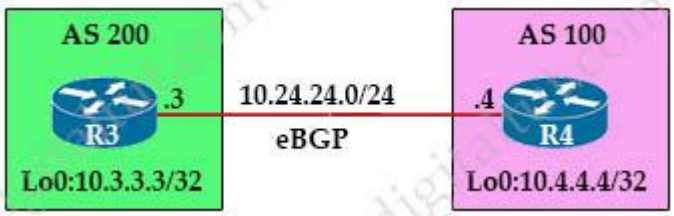


A. R4(config-router)#bgp default local-preference 200
B. R3(config-router)#neighbor 10.1.1.1 weight 200
C. R3(config-router)#bgp default local-preference 200
D. R4(config-router)#neighbor 10.2.2.2 weight 200

Answer: A

Question 6

Refer to the exhibit.



An engineer must establish eBGP peering between router R3 and router R4. Both routers should use their loopback interfaces as the BGP router ID. Which configuration set accomplishes this task?

A.
R3(config)#router bgp 200
R3(config-router)#neighbor 10.24.24.4 remote-as 100
R3(config-router)#bgp router-id 10.3.3.3

R4(config)#router bgp 100
R4(config-router)#neighbor 10.24.24.3 remote-as 200
R4(config-router)#bgp router-id 10.4.4.4

B.
R3(config)#router bgp 200
R3(config-router)#neighbor 10.4.4.4 remote-as 100
R3(config-router)#neighbor 10.4.4.4 update-source loopback0

R4(config)#router bgp 100
R4(config-router)#neighbor 10.3.3.3 remote-as 200
R4(config-router)#neighbor 10.3.3.3 update-source loopback0

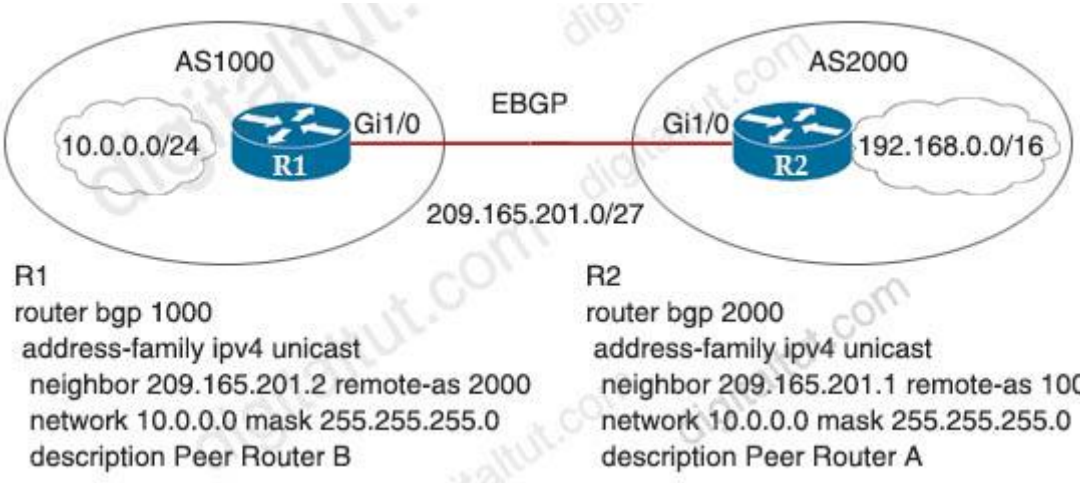
C.
R3(config)#router bgp 200
R3(config-router)#neighbor 10.24.24.4 remote-as 100
R3(config-router)#neighbor 10.24.24.4 update-source loopback0

R4(config)#router bgp 100
R4(config-router)#neighbor 10.24.24.3 remote-as 200
R4(config-router)#neighbor 10.24.24.3 update-source loopback0

Answer: A

Question 7

Refer to the exhibit. Which two commands are needed to allow for full reachability between AS 1000 and AS 2000? (Choose two)

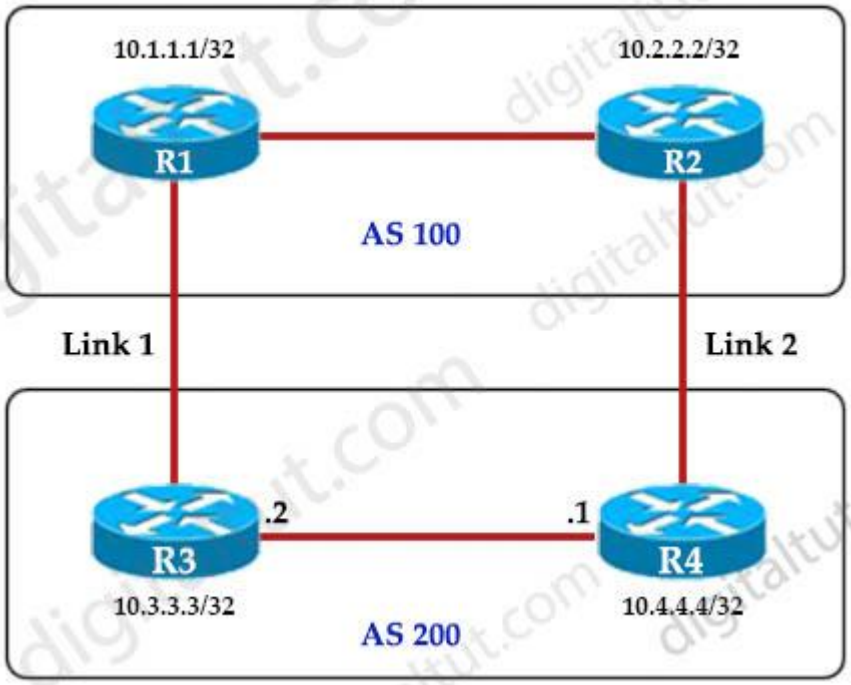


A. R2#no network 10.0.0.0 255.255.255.0
B. R1#network 19.168.0.0 mask 255.255.0.0
C. R1#no network 10.0.0.0 255.255.255.0
D. R2#network 209.165.201.0 mask 255.255.192.0
E. R2#network 192.168.0.0 mask 255.255.0.0

Answer: A E

Question 8

Refer to the exhibit.



An engineer must ensure that all traffic entering AS 200 will choose Link 2 as an entry point. Assuming that all BGP neighbor relationships have been formed and that the attributes have not been changed on any of the routers, which configuration accomplish task?

Option A R3(config)#route-map PREPEND permit 10 R3(config-route-map)#set as-path prepend 200 200 200 R3(config)# router bgp 200 R3(config-router)#neighbor 10.1.1.1 route-map PREPEND out	**Option B** R3(config)#route-map PREPEND permit 10 R3(config-route-map)#set as-path prepend 100 100 100 R3(config)# router bgp 200 R3(config-router)#neighbor 10.2.2.2 route-map PREPEND in
Option C R3(config)#route-map PREPEND permit 10 R3(config-route-map)#set as-path prepend 100 100 100 R3(config)# router bgp 200 R3(config-router)#neighbor 10.1.1.1 route-map PREPEND in	**Option D** R3(config)#route-map PREPEND permit 10 R3(config-route-map)#set as-path prepend 200 200 200 R3(config)# router bgp 200 R3(config-router)#neighbor 10.2.2.2 route-map PREPEND out

A. Option A
B. Option B
C. Option C
D. Option D

Answer: A

Wireless Questions

https://www.digitaltut.com/wireless-questions

Question 1

Which DNS lookup does an access point perform when attempting CAPWAP discovery?

A. CISCO-DNA-CONTROILLER.local
B. CAPWAP-CONTROLLER.local
C. CISCO-CONTROLLER.local
D. CISCO-CAPWAP-CONTROLLER.local

Answer: D

Question 2

Which two pieces of information are necessary to compute SNR? (Choose two)

A. EIRP
B. noise floor
C. antenna gain
D. RSSI
E. transmit power

Answer: B D

Question 3

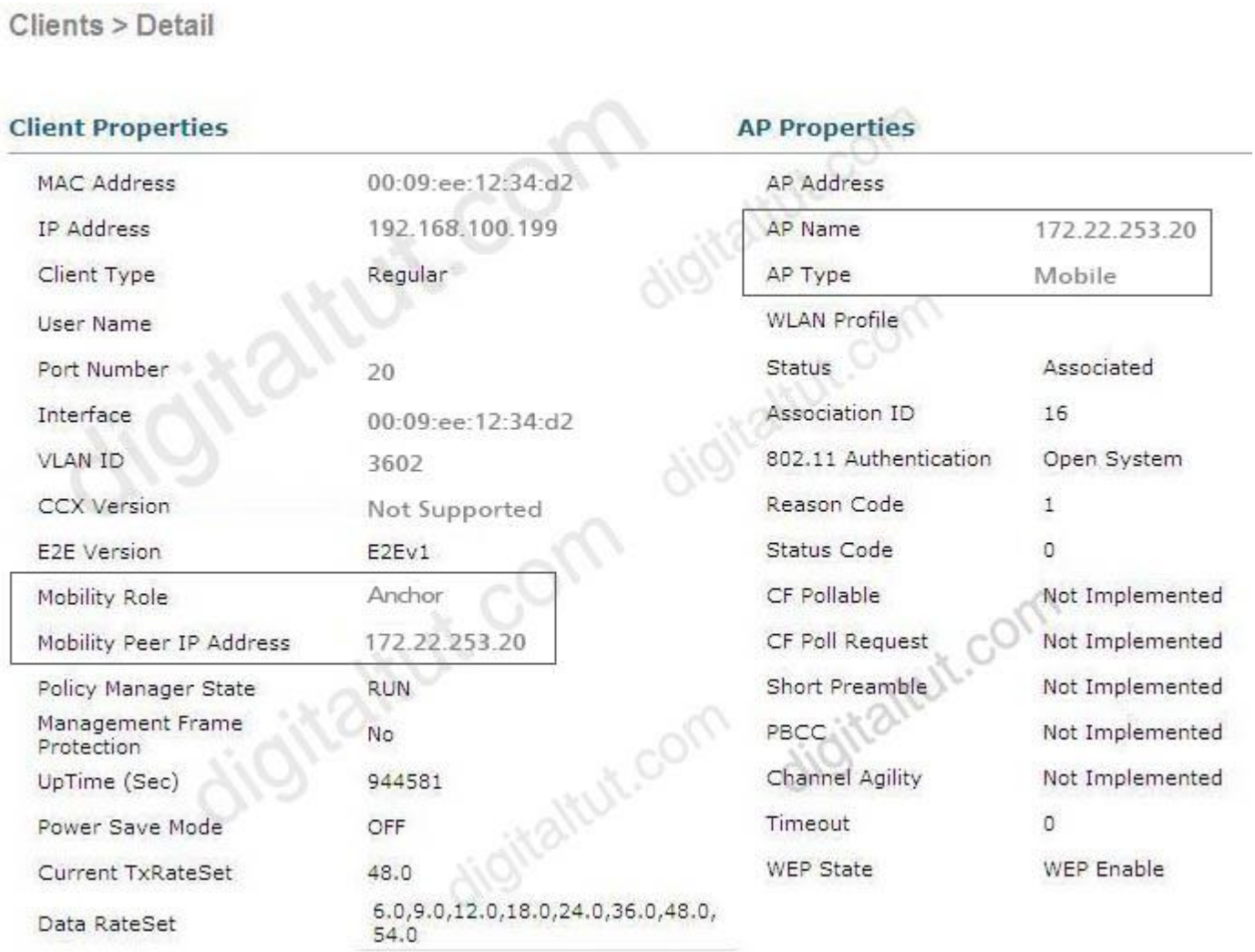
Which statement about Cisco EAP-FAST is true?

A. It does not require a RADIUS server certificate
B. It requires a client certificate
C. It is an IETF standard.
D. It operates in transparent mode

Answer: A

Question 4

Refer to the exhibit. The WLC administrator sees that the controller to which a roaming client associates has Mobility Role Anchor configured under Clients > Detail. Which type of roaming is supported?



Clients > Detail

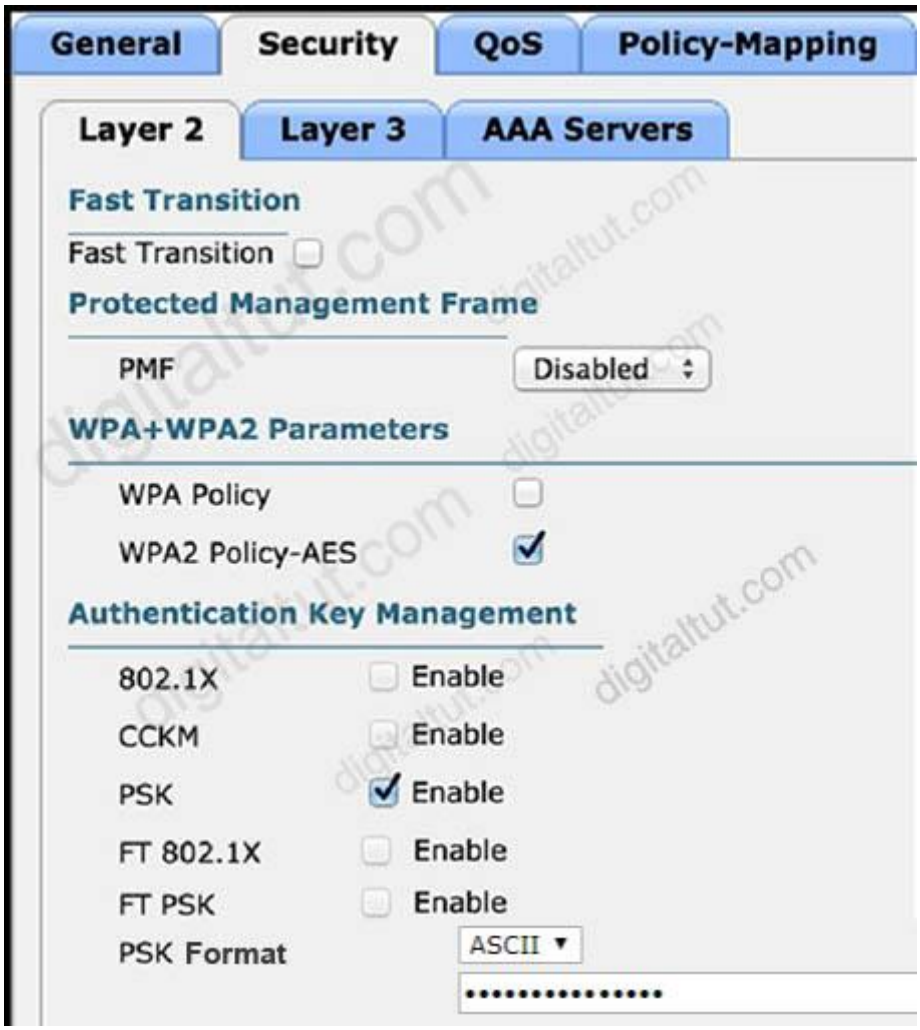
Client Properties		AP Properties	
MAC Address	00:09:ee:12:34:d2	AP Address	
IP Address	192.168.100.199	AP Name	172.22.253.20
Client Type	Regular	AP Type	Mobile
User Name		WLAN Profile	
Port Number	20	Status	Associated
Interface	00:09:ee:12:34:d2	Association ID	16
VLAN ID	3602	802.11 Authentication	Open System
CCX Version	Not Supported	Reason Code	1
E2E Version	E2Ev1	Status Code	0
Mobility Role	Anchor	CF Pollable	Not Implemented
Mobility Peer IP Address	172.22.253.20	CF Poll Request	Not Implemented
Policy Manager State	RUN	Short Preamble	Not Implemented
Management Frame Protection	No	PBCC	Not Implemented
UpTime (Sec)	944581	Channel Agility	Not Implemented
Power Save Mode	OFF	Timeout	0
Current TxRateSet	48.0	WEP State	WEP Enable
Data RateSet	6.0,9.0,12.0,18.0,24.0,36.0,48.0, 54.0		

A. Indirect
B. Layer 3 intercontroller
C. Layer 2 intercontroller
D. Intercontroller

Answer: B

Question 5

Refer to the exhibit. Based on the configuration in this WLAN security setting. Which method can a client use to authenticate to the network?



A. text string
B. username and password
C. certificate
D. RADIUS token

Answer: A

Question 6

What are two common sources of interference for WI-FI networks? (Choose two)

A. radar
B. LED lights
C. rogue AP
D. conventional oven
E. fire alarm

Answer: A C

Question 7

An engineer is configuring local web authentication on a WLAN. The engineer chooses the Authentication radio button under the Layer 3 Security options for Web Policy. Which device presents the web authentication for the WLAN?

A. ISE server
B. local WLC
C. RADIUS server
D. anchor WLC

Answer: B

Question 8

Which two descriptions of FlexConnect mode for Cisco APs are true? (Choose two)

A. APs that operate in FlexConnect mode cannot detect rogue APs
B. FlexConnect mode is used when the APs are set up in a mesh environment and used to bridge between each other
C. FlexConnect mode is a feature that is designed to allow specified CAPWAP-enabled APs to exclude themselves from managing data traffic between clients and infrastructure
D. When connected to the controller, FlexConnect APs can tunnel traffic back to the controller
E. FlexConnect mode is a wireless solution for branch office and remote office deployments

Answer: D E

Question 9

When configuration WPA2 Enterprise on a WLAN, which additional security component configuration is required?

A. NTP server
B. PKI server
C. RADIUS server
D. TACACS server

Answer: C

Question 10

An engineer configures a WLAN with fast transition enabled. Some legacy clients fail to connect to this WLAN. Which feature allows the legacy clients to connect while still allowing other clients to use fast transition based on their OLTIs?

A. over the DS
B. adaptive R
C. 802.11V
D. 802.11k

Answer: B

Question 11

To increase total throughput and redundancy on the links between the wireless controller and switch, the customer enabled LAG on the wireless controller. Which EtherChannel mode must be configured on the switch to allow the WLC to connect?

A. Auto
B. Active
C. On
D. Passive

Answer: C

Question 12

A client device fails to see the enterprise SSID, but other devices are connected to it. What is the cause of this issue?

A. The hidden SSID was not manually configured on the client.
B. The broadcast SSID was not manually configured on the client.
C. The client has incorrect credentials stored for the configured hidden SSID.
D. The client has incorrect credentials stored for the configured broadcast SSID.

Answer: A

Question 13

A customer has several small branches and wants to deploy a WI-FI solution with local management using CAPWAP. Which deployment model meets this requirement?

A. Autonomous
B. Mobility express
C. SD-Access wireless
D. Local mode

Answer: B

Question 14

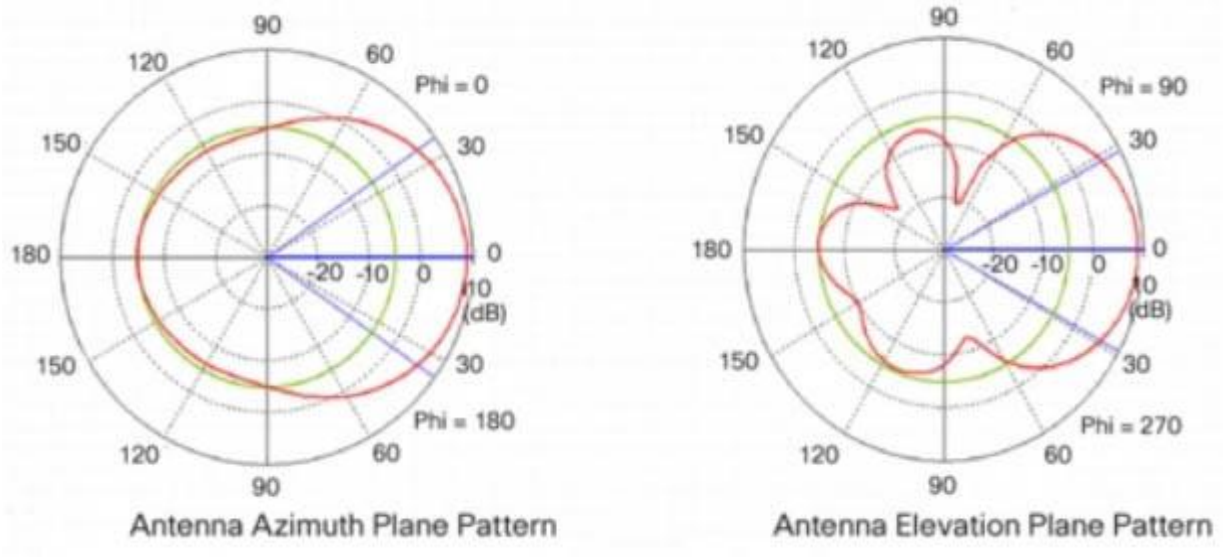
Which two methods are used by an AP that is trying to discover a wireless LAN controller? (Choose two)

A. Cisco Discovery Protocol neighbor
B. broadcasting on the local subnet
C. DNS lookup cisco-DNA-PRIMARY.local domain
D. DHCP Option 43
E. querying other APs

Answer: B D

Question 15

Refer to the exhibit. Which type of antenna do the radiation patterns present?



A. Patch
B. Omnidirectional
C. Yagi
D. Dipole

Answer: A

Wireless Questions 2

https://www.digitaltut.com/wireless-questions-2

Question 1

When a wireless client roams between two different wireless controllers, a network connectivity outage is experience for a period of time. Which configuration issue would cause this problem?

A. Not all of the controllers in the mobility group are using the same mobility group name
B. Not all of the controllers within the mobility group are using the same virtual interface IP address
C. All of the controllers within the mobility group are using the same virtual interface IP address
D. All of the controllers in the mobility group are using the same mobility group name

Answer: B

Question 2

Which access point mode allows a supported AP to function like a WLAN client would, associating and identifying client connectivity issues?

A. client mode
B. SE-connect mode
C. sensor mode
D. sniffer mode

Answer: C

Question 3

A client device roams between access points located on different floors in an atrium. The access points joined to the same controller and configuration in local mode. The access points are in different IP addresses, but the client VLAN in the group same. What type of roam occurs?

A. inter-controller
B. inter-subnet
C. intra-VLAN
D. intra-controller

Answer: D

Question 4

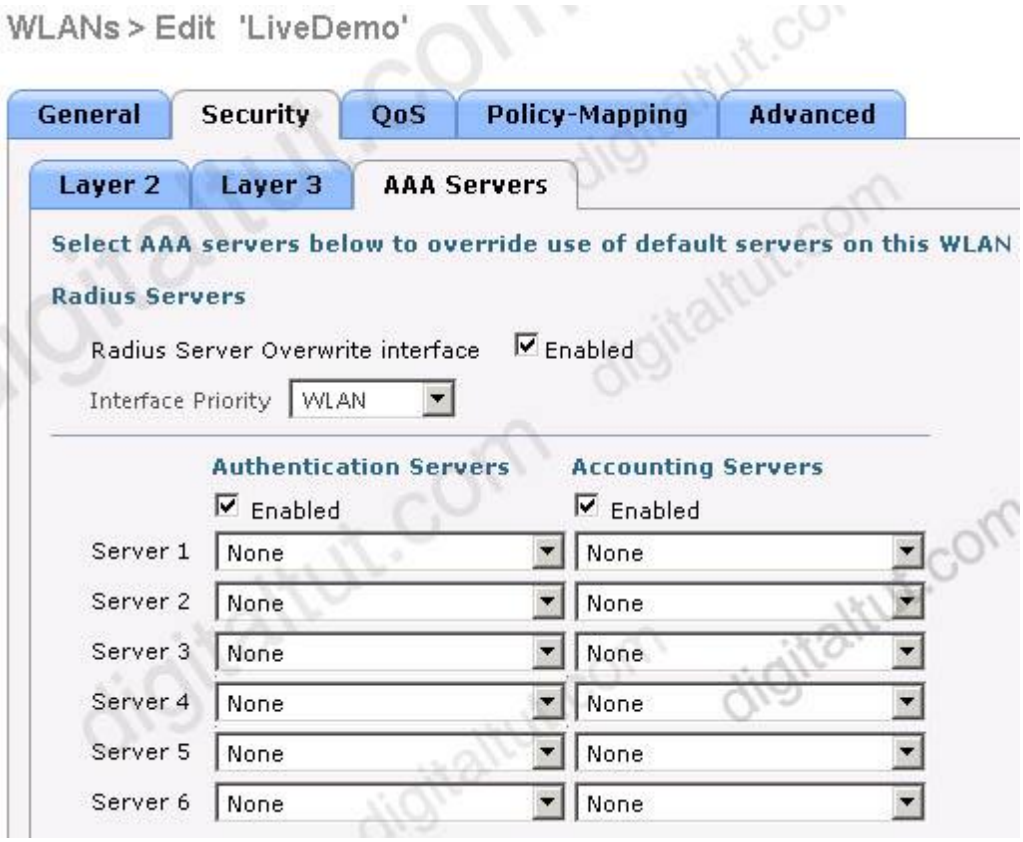
What does the LAP send when multiple WLCs respond to the CISCO_CAPWAP-CONTROLLER.localdomain hostname during the CAPWAP discovery and join process?

A. broadcast discover request
B. join request to all the WLCs
C. unicast discovery request to each WLC
D. Unicast discovery request to the first WLC that resolves the domain name

Answer: C

Question 5

Refer to the exhibit.



Assuming the WLC's interfaces are not in the same subnet as the RADIUS server, which interface would the WLC use as the source for all RADIUS-related traffic?

A. the interface specified on the WLAN configuration
B. any interface configured on the WLC
C. the controller management interface
D. the controller virtual interface

Answer: A

Question 6

Wireless users report frequent disconnections from the wireless network. While troubleshooting a network engineer finds that after the user a disconnect, the connection reestablishes automatically without any input required. The engineer also notices these message logs.

AP 'AP2' is down Reason: Radio channel set. 6:54:04 PM
AP 'AP4' is down Reason: Radio channel set. 6:44:49 PM
AP 'AP7' is down Reason: Radio channel set. 6:34:32 PM

Which action reduces the user impact?

A. increase the dynamic channel assignment interval
B. increase BandSelect
C. increase the AP heartbeat timeout
D. enable coverage hole detection

Answer: A

Question 7

Which DHCP option helps lightweight APs find the IP address of a wireless LAN controller?

A. Option 43
B. Option 60
C. Option 67
D. Option 150

Answer: A

Question 8

Why is an AP joining a different WLC than the one specified through option 43?

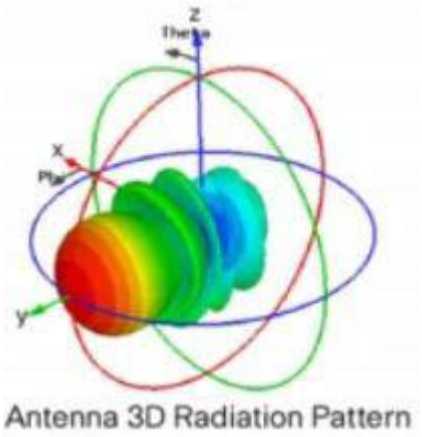
A. The WLC is running a different software version
B. The AP is joining a primed WLC

C. The AP multicast traffic unable to reach the WLC through Layer 3
D. The APs broadcast traffic is unable to reach the WLC through Layer 2

Answer: B

Question 9

Which type of antenna does the radiation pattern represent?



A. Yagi
B. multidirectional
C. directional patch
D. omnidirectional

Answer: A

Question 10

What is calculated using the numerical values of the transmitter power level, cable loss and antenna gain?

A. SNR
B. RSSI
C. dBi
D. EIRP

Answer: D

Wireless Questions 3

https://www.digitaltut.com/wireless-questions-3

Question 1

What is used to measure the total output energy of a Wi-Fi device?

A. dBi
B. EIRP
C. mW
D. dBm

Answer: C

Question 2

You are configuring a controller that runs Cisco IOS XE by using the CLI. Which three configuration options are used for 802.11w Protected Management Frames? (Choose three)

A. mandatory
B. association-comeback
C. SA teardown protection
D. saquery-retry-time
E. enable
F. comeback-time

Answer: A B D

Question 3

Refer to the exhibit.

```
(WLC) >show interface summary
Interface Name                Vlan Id
------------------------      -------
deadnet                       999
users1                        14
users2                        15
users3                        16

(WLC) >show wlan 1
WLAN Identifier . . . . . . . . . . . . . . . . . 1
Network Name (SSID) . . . . . . . . . . . . . . . wlan1
AAA Policy Override . . . . . . . . . . . . . . . Enabled
Interface . . . . . . . . . . . . . . . . . . . . deadnet
FlexConnect Local Switching . . . . . . . . . Enabled
FlexConnect Central Association . . . . . . . Disabled
flexconnect Central Dhcp Flag . . . . . . . . Disabled
flexconnect nat-pat Flag . . . . . . . . . . . Disabled
flexconnect DNS Override Flag . . . . . . . . Disabled
flexconnect PPPoE pass-through . . . . . . . Disabled
flexconnect local-switching IP-source-guar . .Disabled
FlexConnect Vlan based Central Switching . .  Enabled
FlexConnect Local Authentication . . . . . .  Disabled
FlexConnect Learn IP Address . . . . . . . .  Enabled

(WLC) >show ap config general FlexAP1
AP Mode . . . . . . . . . . . . . . . . . . . . . FlexConnect
FlexConnect Vlan mode : . . . . . . . . . . . . . Enabled
            Native ID : . . . . . . . . . . . . . . . 1
            WLAN 1 : . . . . . . . . . . . . . . . . . 10 (AP-Specific)
FlexConnect VLAN ACL Mappings
Vlan : . . . . . . . . . . . . . . . . . . . . . . 10
            Ingress ACL : . . . . . . . . . . . . . . None
            Egress ACL : . . . . . . . . . . . . . . . None
VLAN with least priority : . . . . . . . . . . . 13
FlexConnect Group . . . . . . . . . . . . . . . . flexgroup1
Group VLAN ACL Mappings
Vlan : . . . . . . . . . . . . . . . . . . . . . . 11
            Ingress ACL : . . . . . . . . . . . . . . None
            Egress ACL : . . . . . . . . . . . . . . . None
Vlan : . . . . . . . . . . . . . . . . . . . . . . 12
```

A wireless client is connecting to FlexAP1 which is currently working standalone mode. The AAA authentication process is returning the following AVPs:

Tunnel-Private-Group-Id(81): 15 Tunnel-Medium-Type(65): IEEE-802(6) Tunnel-Type(64): VLAN(13)

Which three behaviors will the client experience? (Choose three)

A. While the AP is in standalone mode, the client will be placed in VLAN 15.
B. While the AP is in standalone mode, the client will be placed in VLAN 10.

C. When the AP transitions to connected mode, the client will be de-authenticated.
D. While the AP is in standalone mode, the client will be placed in VLAN 13.
E. When the AP is in connected mode, the client will be placed in VLAN 13.
F. When the AP transitions to connected mode, the client will remain associated.
G. When the AP is in connected mode, the client will be placed in VLAN 15.
H. When the AP is in connected mode, the client will be placed in VLAN 10.

Answer: B C G

Question 4

Which antenna type should be used for a site-to-site wireless connection?

A. Omnidirectional
B. Yagi
C. dipole
D. patch

Answer: B

Question 5

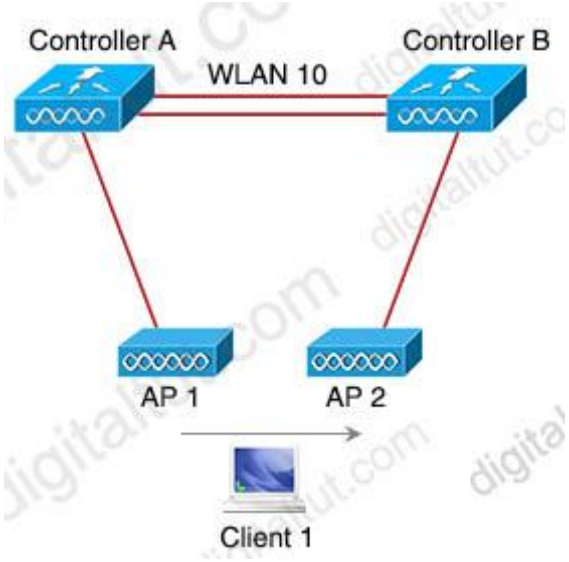
Using the EIRP formula, what parameter is subtracted to determine the EIRP value?

A. antenna cable loss
B. antenna gain
C. transmitter power
D. signal-to-noise ratio

Answer: A

Question 6

Refer to the exhibit.



Both controllers are in the same mobility group. Which result occurs when Client 1 roams between APs that are registered to different controllers in the same WLAN?

A. Client 1 contact controller B by using an EoIP tunnel
B. CAPWAP tunnel is created between controller A and controller B
C. Client 1 users an EoIP tunnel to contact controller A
D. The client database entry moves from controller A to controller B

Answer: D

Question 7

Which two sources cause interference for Wi-Fi networks? (Choose two)

A. mirrored wall
B. fish tank
C. 900MHz baby monitor
D. DECT 6.0 cordless
E. incandesent lights

Answer: A B

Question 8

What is the responsibility of a secondary WLC?

A. It shares the traffic load of the LAPs with the primary controller.
B. It avoids congestion on the primary controller by sharing the registration load on the LAPs.

C. It registers the LAPs if the primary controller fails.
D. It enables Layer 2 and Layer 3 roaming between itself and the primary controller.

Answer: C

Question 9

Which DHCP option provides the CAPWAP APs with the address of the wireless controller(s)?

A. 43
B. 66
C. 69
D. 150

Answer: A

Question 10

A wireless consultant is designing a high-density wireless network for a lecture hall for 1000 students. Which antenna type is recommended for this environment?

A. sector antenna
B. dipole antenna
C. parabolic dish
D. omnidirectional antenna

Answer: D

Question 11

An engineer has deployed a single Cisco 5520 WLC with a management IP address of 172.16.50.5/24. The engineer must register 50 new Cisco AIR-CAP2802I-E-K9 access points to the WLC using DHCP option 43.
The access points are connected to a switch in VLAN 100 that uses the 172.16.100.0/24 subnet. The engineer has configured the DHCP scope on the switch as follows:

Network 172.16.100.0 255.255.255.0 Default Router 172.16.100.1 Option 43 Ascii 172.16.50.5

The access points are failing to join the wireless LAN controller. Which action resolves the issue?

A. configure option 43 Hex F104.AC10.3205
B. configure option 43 Hex F104.CA10.3205
C. configure dns-server 172.16.50.5
D. configure dns-server 172.16.100.1

Answer: A

Question 12

Refer to the exhibit. Which level message does the WLC send to the syslog server?



A. syslog level errors and less severity messages
B. syslog level errors messages
C. all syslog levels messages
D. syslog level errors and greater severity messages

Answer: D

HSRP & VRRP Questions

https://www.digitaltut.com/hsrp-vrrp-questions

Question 1

Which two statements about HSRP are true? (Choose two)

A. Its virtual MAC is 0000.0C07.ACxx
B. Its multicast virtual MAC is 0000.5E00.01xx
C. Its default configuration allows for pre-emption
D. It supports tracking
E. It supports unique virtual MAC addresses

Answer: A D

Question 2

Which behavior can be expected when the HSRP versions is changed from 1 to 2?

A. Each HSRP group reinitializes because the virtual MAC address has changed
B. No changes occur because version 1 and 2 use the same virtual MAC OUI
C. Each HSRP group reinitializes because the multicast address has changed
D. No changes occur because the standby router is upgraded before the active router

Answer: A

Question 3

If a VRRP master router fails, which router is selected as the new master router?

A. router with the highest priority
B. router with the highest loopback address
C. router with the lowest loopback address
D. router with the lowest priority

Answer: A

Question 4

Which First Hop Redundancy Protocol maximizes uplink utilization and minimizes the amount of configuration that is necessary?

A. GLBP
B. HSRP v2
C. VRRP
D. HSRP v1

Answer: A

Question 5

What are three valid HSRP states? (Choose three)

A. listen
B. learning
C. full
D. established
E. speak
F. INIT

Answer: A B E

Question 6

Which two statements about VRRP are true? (Choose two)

A. It is assigned multicast address 224.0.0.8.
B. The TTL for VRRP packets must be 255.
C. It is assigned multicast address 224.0.0.9.
D. Its IP address number is 115.
E. Three versions of the VRRP protocol have been defined.
F. It supports both MD5 and SHA1 authentication.

Answer: B E

Question 7

Which statement about VRRP is true?

A. It supports load balancing
B. It can be configured with HSRP on a switch or switch stack
C. It supports IPv4 and IPv6
D. It supports encrypted authentication

Answer: B

Question 8

Which First Hop Redundancy Protocol should be used to meet a design requirements for more efficient default bandwidth usage across multiple devices?

A. GLBP
B. LCAP
C. HSRP
D. VRRP

Answer: A

Question 9

How does SSO work with HSRP to minimize network disruptions?

A. It enables HSRP to elect another switch in the group as the active HSRP switch
B. It ensures fast failover in the case of link failure
C. It enables data forwarding along known routes following a switchover, while the routing protocol reconverges
D. It enables HSRP to failover to the standby RP on the same device

Answer: D

Question 10

An engineer must configure interface GigabitEthernet0/0 for VRRP group 10. When the router has the highest priority in the group, it must assume the master role. Which command set must be added to the initial configuration to accomplish this task?

Initial Configuration

```
interface GigabitEthernet0/0
 description to IDF
 ip address 172.16.13.2 255.255.255.0
```

A.
vrrp 10 ip 172.16.13.254
vrrp 10 preempt

B.
standby 10 ip 172.16.13.254
standby 10 priority 120

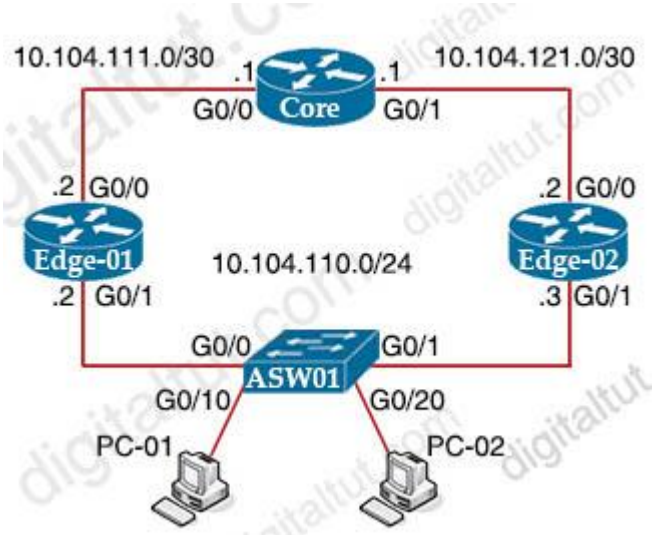
C.
vrrp group 10 ip 172.16.13.254 255.255.255.0
vrrp group 10 priority 120

D.
standby 10 ip 172.16.13.254 255.255.255.0
standby 10 preempt

Answer: A

Question 11

Refer to the exhibit. Edge-01 is currently operational as the HSRP primary with priority 110. Which command on Edge-02 causes it to take over the forwarding role when Edge-01 is down?

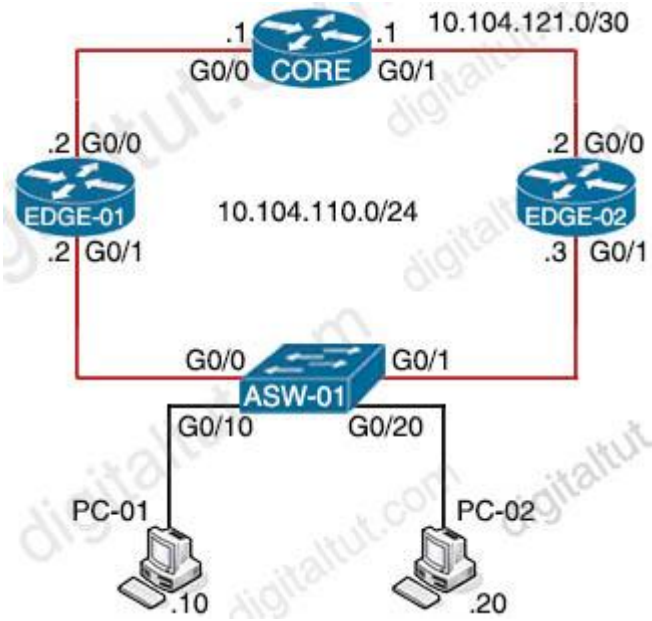


A. standby 10 priority
B. standby 10 timers
C. standby 10 track
D. standby 10 preempt

Answer: D

Question 12

Refer to the exhibit.



On which interfaces should VRRP commands be applied to provide first hop redundancy to PC-01 and PC-02?

A. G0/0 on Edge-01 and G0/0 on Edge-02
B. G0/1 on Edge-01 and G0/1 on Edge-02
C. G0/0 and G0/1 on Core
D. G0/0 and G0/1 on ASW-01

Answer: B

HSRP & VRRP Questions 2

https://www.digitaltut.com/hsrp-vrrp-questions-2

Question 1

Refer to the exhibit.

R1	R2
key chain cisco123 key 1 key-string Cisco123!	key chain cisco123 key 1 key-string Cisco123!
Ethernet0/0 - Group 10 State is Active 8 state changes, last state change 00:03:33 Virutal IP address is 192.168.0.1 Active virtual MAC address is 0000.0c07.ac0a	Ethernet0/0 - Group 10 State is Active 17 state changes, last state change 00:03:33 Virutal IP address is 192.168.0.1 Active virtual MAC address is 0000.0c07.ac0a

An engineer is installing a new pair of routers in a redundant configuration. Which protocol ensures that traffic is not disrupted in the event of a hardware failure?

A. HSRPv2
B. VRRP
C. GLBP
D. HSRPv1

Answer: D

Question 2

Refer to the exhibit.

```
R1
interface GigabitEthernet0/0
 ip address 192.168.250.2 255.255.255.0
 standby 20 ip 192.168.250.1
 standby 20 priority 120

R2
interface GigabitEthernet0/0
 ip address 192.168.250.3 255.255.255.0
 standby 20 ip 192.168.250.1
 standby 20 priority 110
```

What are two effects of this configuration? (Choose two)

A. R1 becomes the active router
B. R1 becomes the standby router
C. If R2 goes down, R1 becomes active but reverts to standby when R2 comes back online
D. If R1 goes down, R2 becomes active but reverts to standby when R1 comes back online
E. If R1 goes down, R2 becomes active and remains the active device when R1 comes back online

Answer: A E

Question 3

Refer to the exhibit.

R1	R2
key chain cisco123 key 1 key-string Cisco123!	key chain cisco123 key 1 key-string cisco123!
Ethernet0/0 - Group 10 State is Active 8 state changes, last state change 00:03:33 Virutal IP address is 192.168.0.1 Active virtual MAC address is 0000.0c07.ac0a Local virtual MAC address is 0000.0c07.ac0a (v1 default) Hello time 5 sec, hold time 15 sec Next hello sent in 2.704 secs Authentication MD5, key-chain "cisco123" Preemption enabled Active router is local Standby router is unknown Priority 255 (configured 255) Group name is "workstation-group" (cfgd)	Ethernet0/0 - Group 10 State is Active 17 state changes, last state change 00:03:33 Virutal IP address is 192.168.0.1 Active virtual MAC address is 0000.0c07.ac0a Local virtual MAC address is 0000.0c07.ac0a (v1 Hello time 10 sec, hold time 30 sec Next hello sent in 6.704 secs Authentication MD5, key-chain "cisco123" Preemption disabled Active router is local Standby router is unknown Priority 200 (configured 200) Group name is "workstation-group" (cfgd)

An engineer is installing a new pair of routers in a redundant configuration. When checking on the standby status of each router the engineer notices that the routers are not functioning as expected. Which action will resolve the configuration error?

A. configure matching hold and delay timers
B. configure matching key-strings
C. configure matching priority values
D. configure unique virtual IP addresses

Answer: B

Question 4

An engineer must configure HSRP group 300 on a Cisco IOS router. When the router is functional, it must be the active HSRP router. The peer router has been configured using the default priority value. Which three commands are required? (Choose three)

A. standby 300 timers 1 110
B. standby 300 priority 90
C. standby 300 priority 110
D. standby version 2
E. standby version 1
F. standby 300 preempt

Answer: C D F

Network Assurance Questions

https://www.digitaltut.com/network-assurance-questions

Question 1

Refer to this output What is the logging severity level?

R1#Feb 14 37:15:12:429: %LINEPROTO-5-UPDOWN Line protocol on interface GigabitEthernet0/1. Change state to up

A. Notification
B. Alert
C. Critical
D. Emergency

Answer: A

Question 2

When using TLS for syslog, which configuration allows for secure and reliable transportation of messages to its default port?

A. logging host 10.2.3.4 vrf mgmt transport tcp port 6514
B. logging host 10.2.3.4 vrf mgmt transport udp port 6514
C. logging host 10.2.3.4 vrf mgmt transport tcp port 514
D. logging host 10.2.3.4 vrf mgmt transport udp port 514

Answer: A

Question 3

Which component of the Cisco Cyber Threat Defense solution provides user and flow context analysis?

A. Cisco Firepower and FireSIGHT
B. Cisco Stealthwatch system
C. Advanced Malware Protection
D. Cisco Web Security Appliance

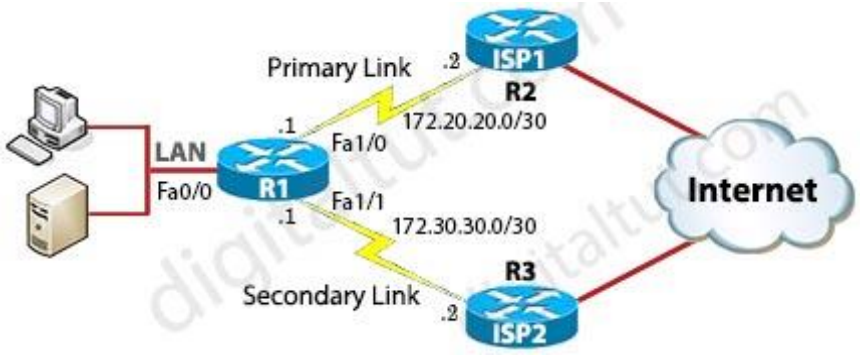
Answer: B

IP SLA Questions

https://www.digitaltut.com/ip-sla-questions-3

Question 1

Refer to exhibit. What are two reasons for IP SLA tracking failure? (Choose two)




```
R1(config)#ip sla 1
R1(config-ip-sla)#icmp-echo 172.20.20.2 source-interface FastEthernet0/0
R1(config-ip-sla-echo)#timeout 5000
R1(config-ip-sla-echo)#frequency 10
R1(config-ip-sla-echo)#threshold 500
R1(config)#ip sla schedule 1 start-time now life forever
R1(config)#track 10 ip sla 1 reachability
R1(config)#ip route 0.0.0.0 0.0.0.0 172.20.20.2 track 10
R1(config)#no ip route 0.0.0.0 0.0.0.0 172.20.20.2
R1(config)#ip route 0.0.0.0 0.0.0.0 172.30.30.2 5
```

A. The source-interface is configured incorrectly
B. The destination must be 172.30.30.2 for icmp-echo
C. A route back to the R1 LAN network is missing in R2
D. The default route has wrong next hop IP address
E. The threshold value is wrong

Answer: C E

Question 2

Refer to the exhibit.

```
ip sla 10
 icmp-echo 192.168.10.20
 timeout 500
 frequency 3
 ip sla schedule 10 life forever start-time now
track 10 ip sla 10 reachability
```

The IP SLA is configured in a router. An engineer must configure an EEM applet to shut down the interface and bring it back up when there is a problem with the IP SLA. Which configuration should the engineer use?

A. event manager applet EEM_IP_SLA
event track 10 state down

B. event manager applet EEM_IP_SLA
event track 10 state unreachable

C. event manager applet EEM_IP_SLA
event sla 10 state unreachable

D. event manager applet EEM_IP_SLA
event sla 10 state down

Answer: A

Question 3

Which two statements about IP SLA are true? (Choose two)

A. SNMP access is not supported
B. It uses active traffic monitoring
C. It is Layer 2 transport-independent
D. The IP SLA responder is a component in the source Cisco device
E. It can measure MOS
F. It uses NetFlow for passive traffic monitoring

Answer: B C

Question 4

Which IP SLA operation requires the IP SLA responder to be configured on the remote end?

A. ICMP echo
B. UDP jitter
C. CMP jitter
D. TCP connect

Answer: B

NetFlow Questions

https://www.digitaltut.com/netflow-questions-2

Question 1

A network engineer is configuring Flexible NetFlow and enters these commands:

Sampler Netflow1
mode random one-out-of 100
interface fastethernet 1/0
flow-sampler netflow1

Which are two results of implementing this feature instead of traditional NetFlow? (Choose two)

A. Only the flows of top 100 talkers are exported
B. CPU and memory utilization are reduced
C. The data export flow is more secure
D. The accuracy of the data to be analyzed is improved
E. The number of packets to be analyzed are reduced

Answer: B E

Question 2

Refer to the exhibit.

```
flow record v4_r1
 match ipv4 tos
 match ipv4 protocol
 match ipv4 source address
 match ipv4 destination address
 match transport source-port
 match transport destination-port
 collect counter bytes long
 collect counter packets long
!
flow monitor FLOW-MONITOR-1
 record v_r1
 exit
!
sampler SAMPLER-1
 mode random 1 out-of 2
 exit
!
ip cef
!
interface GigabitEthernet0/0/0
 ip address 172.16.6.2 255.255.255.0
```

Option A

```
sampler SAMPLER-1
 mode random 1-out-of 2
 flow FLOW-MONITOR-1

 interface GigabitEthernet0/0/0
 ip flow monitor SAMPLER-1 input
```

Option B

```
sampler SAMPLER-1
 no mode random 1-out-of 2
 mode percent 50

interface GigabitEthernet0/0/0
 ip flow monitor FLOW_MONITOR-1 sampler S
```

Option C

```
interface GigabitEthernet0/0/0
 ip flow monitor FLOW-MONITOR-1 sampler S
```

Option D

```
flow monitor FLOW-MONITOR-1
 record v4_r1
 sampler SAMPLER-1

interface GigabitEthernet0/0/0
 ip flow monitor FLOW-MONITOR-1 sampler S
```

Which command set must be added to the configuration to analyze 50 packets out of every 100?

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

Question 3

Refer to the exhibit. How can you configure a second export destination for IP address 192.168.10.1?

```
configure terminal
ip flow-export destination 192.168.10.1 9991
ip flow-export version 9
```

A. Specify a different TCP port
B. Specify a different UDP port
C. Specify a VRF
D. Configure a version 5 flow-export to the same destination
E. Specify a different flow ID

Answer: B

Question 4

A network is being migrated from IPv4 to IPv6 using a dual-stack approach. Network management is already 100% IPv6 enabled. In a dual-stack network with two dual-stack

NetFlow collections, how many flow exporters are needed per network device in the flexible NetFlow configuration?

A. 1
B. 2
C. 4
D. 8

Answer: B

SPAN Questions

https://www.digitaltut.com/span-questions

Question 1

Refer to the exhibit.

```
SW1#show monitor session all
Session 1
---------------
Type                  : Remote Destination Session
Source RSPAN VLAN     : 50

Session 2
---------------
Type                  : Local Session
Source Ports          :
        Both          : Fa0/14
  Destination Ports   : Fa0/15
  Encapsulation       : Native
  Ingress             : Disabled
```

An engineer configures monitoring on SW1 and enters the show command to verify operation. What does the output confirm?

A. SPAN session 1 monitors activity on VLAN 50 of a remote switch
B. SPAN session 2 only monitors egress traffic exiting port FastEthernet 0/14.
C. SPAN session 2 monitors all traffic entering and exiting port FastEthernet 0/15.
D. RSPAN session 1 is incompletely configured for monitoring

Answer: D

Question 2

Refer to the exhibit.

```
vlan 222
 remote-span
!
vlan 223
 remote-span
!
monitor session 1 source interface FastEthernet0/1 tx
monitor session 1 source interface FastEthernet0/2 rx
monitor session 1 source interface port-channel 5
monitor session 1 destination remote vlan 222
```

These commands have been added to the configuration of a switch. Which command flags an error if it is added to this configuration?

A. monitor session 1 source interface FastEthernet0/1 rx
B. monitor session 1 source interface port-channel 6
C. monitor session 1 source vlan 10
D. monitor session 1 source interface port-channel 7, port-channel 8

Answer: C

Question 3

Refer to the exhibit.

```
monitor session 1 source vlan 10 -12 rx
monitor session 1 destination interface gigabitethernet0/1
```

An engineer must configure a SPAN session. What is the effect of the configuration?

A. Traffic sent on VLANs 10, 11, and 12 is copied and sent to interface g0/1.
B. Traffic sent on VLANs 10 and 12 only is copied and sent to interface g0/1.
C. Traffic received on VLANs 10 and 12 only is copied and sent to interface g0/1.
D. Traffic received on VLANs 10, 11, and 12 is copied and sent to interface g0/1.

Answer: D

Question 4

Refer to the exhibit.

```
vlan 222
 remote-span
!
vlan 223
 remote-span
!
monitor session 1 source interface FastEthernet0/1 tx
monitor session 1 source interface FastEthernet0/2 rx
monitor session 1 source interface port-channel 5
```

```
monitor session 1 destination remote vlan 222
!
```

What is the result when a technician adds the **monitor session 1 destination remote vlan 223** command?

A. The RSPAN VLAN is replaced by VLAN 223
B. RSPAN traffic is sent to VLANs 222 and 223
C. An error is flagged for configuring two destinations
D. RSPAN traffic is split between VLANs 222 and 223

Answer: A

Question 5

Which feature must be configured to allow packet capture over Layer 3 infrastructure?

A. VSPAN
B. IPSPAN
C. RSPAN
D. ERSPAN

Answer: D

Question 6

Which statement about an RSPAN session configuration is true?

A. A fitter must be configured for RSPAN Regions
B. Only one session can be configured at a time
C. A special VLAN type must be used as the RSPAN destination.
D. Only incoming traffic can be monitored

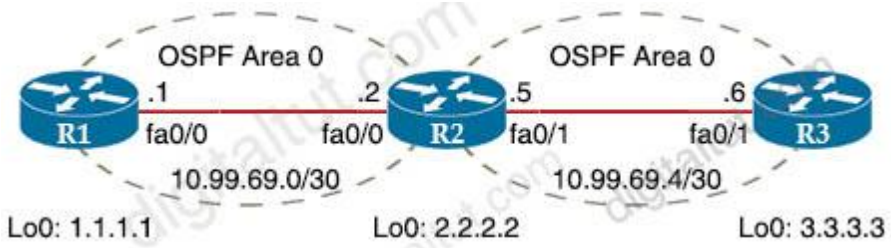
Answer: C

Troubleshooting Questions

https://www.digitaltut.com/troubleshooting-questions-2

Question 1

Refer to the exhibit. R1 is able to ping the R3 fa0/1 interface. Why do the extended pings fail?




```
R1#ping
Protocol [ip]:
Target IP address: 3.3.3.3
Repeat count [5]: 3
Datagram size [100]: 1500
Timeout in seconds [2]:
Extended commands [n]: y
Source address or interface: 1.1.1.1
Type of service [0]:
Set DF bit in IP header? [no]: yes
Validate reply data? [no]:
Data pattern [0xABCD]:
Loose, Strict, Record, Timestamp, Verbose[none]: Record
Number of hops [9]:
Loose, Strict, Record, Timestamp, Verbose[RV]:
Sweep range of sizes [n]:
Type escape sequence to abort.
Sending 3, 1500-byte ICMP Echos to 3.3.3.3, timeout is 2 seconds:
Packet sent with a source address of 1.1.1.1
Packet sent with the DF bit set
Packet has IP options:  Total option bytes= 39, padded length=40
 Record route: <*>
   (0.0.0.0)
   (0.0.0.0)

Unreachable from 10.99.69.2, maximum MTU 1492, Received packet has options
Total option bytes= 39, padded length=40
 Record route: <*>
   (0.0.0.0)
   (0.0.0.0)
<output omitted>
```

A. R2 and R3 do not have an OSPF adjacency
B. R3 is missing a return route to 10.99.69.0/30
C. The maximum packet size accepted by the command is 1476 bytes
D. The DF bit has been set

Answer: D

AAA Questions

https://www.digitaltut.com/aaa-questions

Question 1

Which two statements about AAA authentication are true? (Choose two)

A. RADIUS authentication queries the router's local username database
B. TACACS+ authentication uses an RSA server to authenticate users
C. Local user names are case-insensitive
D. Local authentication is maintained on the router
E. KRB5 authentication disables user access when an incorrect password is entered

Answer: D E

Question 2

A network administrator applies the following configuration to an IOS device.

```
aaa new-model
aaa authentication login default local group tacacs+
```

What is the process of password checks when a login attempt is made to the device?

A. A TACACS+ server is checked first. If that check fail, a database is checked
B. A TACACS+ server is checked first. If that check fail, a RADIUS server is checked. If that check fail, a local database is checked
C. A local database is checked first. If that fails, a TACACS+server is checked, if that check fails, a RADIUS server is checked
D. A local database is checked first. If that check fails, a TACACS+server is checked

Answer: D

Question 3

The login method is configured on the VTY lines of a router with these parameters.
– The first method for authentication is TACACS
– If TACACS is unavailable, login is allowed without any provided credentials

Which configuration accomplishes this task?

A. R1#sh run | include aaa
aaa new-model
aaa authentication login VTY group tacacs+ none
aaa session-id common

R1#sh run | section vty
line vty 0 4
password 7 0202039485748

R1#sh run | include username
R1#

B. R1#sh run | include aaa
aaa new-model
aaa authentication login default group tacacs+
aaa session-id common

R1#sh run | section vty
line vty 0 4
transport input none
R1#

C. R1#sh run | include aaa
aaa new-model
aaa authentication login default group tacacs+ none
aaa session-id common

R1#sh run | section vty
line vty 0 4
password 7 0202039485748

D. R1#sh run | include aaa
aaa new-model
aaa authentication login telnet group tacacs+ none
aaa session-id common

R1#sh run | section vty
line vty 0 4

R1#sh run | include username
R1#

Answer: C

Question 4

Refer to the exhibit.

```
aaa new-model
aaa authentication login authorizationlist tacacs+
tacacs-server host 192.168.0.202
tacacs-server key ciscotestkey
line vty 0 4
```

```
login authentication authorizationlist
```

What is the effect of the configuration?

A. The device will allow users at 192.168.0.202 to connect to vty lines 0 through 4 using the password ciscotestkey
B. The device will allow only users at 192 168.0.202 to connect to vty lines 0 through 4
C. When users attempt to connect to vty lines 0 through 4, the device will authenticate them against TACACS+ if local authentication fails
D. The device will authenticate all users connecting to vty lines 0 through 4 against TACACS+

Answer: D

Question 5

Refer to the exhibit.

```
aaa new-model
aaa authentication login default local-case enable
aaa authentication login ADMIN local-case
username CCNP secret Str0ngP@ssw0rd!
line 0 4
login authentication ADMIN
```

How can you change this configuration so that when user CCNP logs in, the show run command is executed and the session is terminated?

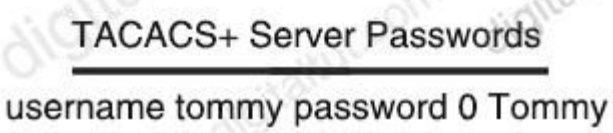
A. Add the autocommand keyword to the aaa authentication command
B. Assign privilege level 15 to the CCNP username
C. Add the access-class keyword to the aaa authentication command
D. Assign privilege level 14 to the CCNP username
E. Add the access-class keyword to the username command
F. Add the autocommand keyword to the username command

Answer: F

Question 6

Refer to the exhibit.

```
aaa new-model
aaa authentication login local tacacs+
tacacs-server host 10.1.1.1
tacacs-server key CISCO

line con 0
 login authentication local
line aux 0
line vty 0 4
!
username tommy password 0 Cisco
end
```



Which password allows access to line con 0 for a username of "tommy" under normal operation?

A. Cisco
B. local
C. 0 Cisco
D. Tommy

Answer: A

GRE Tunnel Questions

https://www.digitaltut.com/gre-tunnel-questions

Question 1

Which two GRE features are configured to prevent fragmentation? (Choose two)

A. TCP window size
B. TCP MSS
C. IP MTU
D. DF bit Clear
E. MTU ignore
F. PMTUD

Answer: B F

Question 2

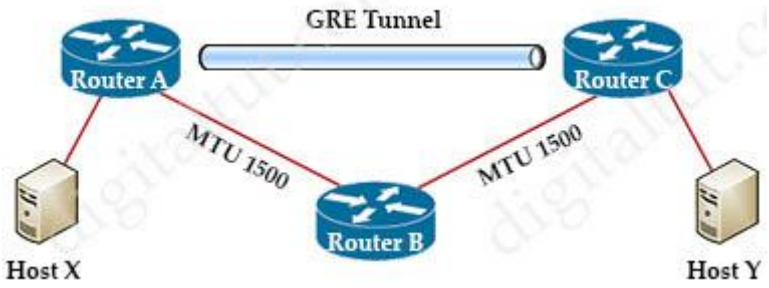
Which TCP setting is tuned to minimize the risk of fragmentation on a GRE/IP tunnel?

A. MTU
B. Window size
C. MRU
D. MSS

Answer: D

Question 3

Refer to exhibit.



MTU has been configured on the underlying physical topology, and no MTU command has been configured on the tunnel interfaces. What happens when a 1500-byte IPv4 packet traverses the GRE tunnel from host X to host Y, assuming the DF bit is cleared?

A. The packet arrives on router C without fragmentation.
B. The packet is discarded on router A
C. The packet is discarded on router B
D. The packet arrives on router C fragmented.

Answer: D

Question 4

Which statement about dynamic GRE between a headend router and a remote router is true?

A. The headend router learns the IP address of the remote end router statically
B. A GRE tunnel without an IP address has a status of administratively down
C. GRE tunnels can be established when the remote router has a dynamic IP address
D. The remote router initiates the tunnel connection

Answer: D

Question 5

A GRE tunnel is down with the error message %TUN-5-RECUR DOWN:

Tunnel0 temporarily disabled due to recursive routing error.

Which two options describe possible causes of the error? (Choose two)

A. Incorrect destination IP addresses are configured on the tunnel
B. There is link flapping on the tunnel
C. There is instability in the network due to route flapping
D. The tunnel mode and tunnel IP address are misconfigured
E. The tunnel destination is being routed out of the tunnel interface

Answer: C E

Question 6

Refer to the exhibit. A network engineer configures a GRE tunnel and enters the show interface tunnel command. What does the output confirm about the configuration?

```
Tunnel100 is up, line protocol is up
 Hardware is Tunnel
 Internet address is 192.168.200.1/24
 MTU 17912 bytes, BW 100 Kbit/sec, DLY 50000 usec,
  reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation TUNNEL, loopback not set
 Keepalive set (10 sec), retries 3
 Tunnel source 209.165.202.129 (GigabitEthernet0/1)
  Tunnel Subblocks:
   src-track:
    Tunnel100 source tracking subblock associated with GigabitEthernet0/1
    Set of tunnels with source GigabitEthernet0/1, 1 members (includes iterators),
    on interface <OK>
 Tunnel protocol/transport GRE/IP
  Key disabled, sequencing disabled
  Checksumming of packets disabled
 Tunnel TTL 255, Fast tunneling enabled
 Tunnel transport MTU 1476 bytes
```

A. The keepalive value is modified from the default value.
B. Interface tracking is configured.
C. The tunnel mode is set to the default.
D. The physical interface MTU is 1476 bytes.

Answer: C

Question 7

Refer to the exhibit.

```
Router1#
Router1#show run int tunnel 0
Building configuration...

Current configuration : 93 bytes
!
interface Tunnel0
 ip address 172.16.1.1 255.255.255.0
 tunnel destination 192.168.10.2
end

Router1#show ip int brief
Interface              IP-Address      OK? Method  Status                Protocol
GigabitEthernet0/0     192.1681.1      YES manual  up                    up
GigabitEthernet0/1     unassigned      YES unset   administratively down down
GigabitEthernet0/2     unassigned      YES unset   administratively down down
GigabitEthernet0/3     unassigned      YES unset   administratively down down
Loopback0              192.168.10.1    YES manual  up                    up
Tunnel0                172.16.1.1      YES manual  up                    down
```

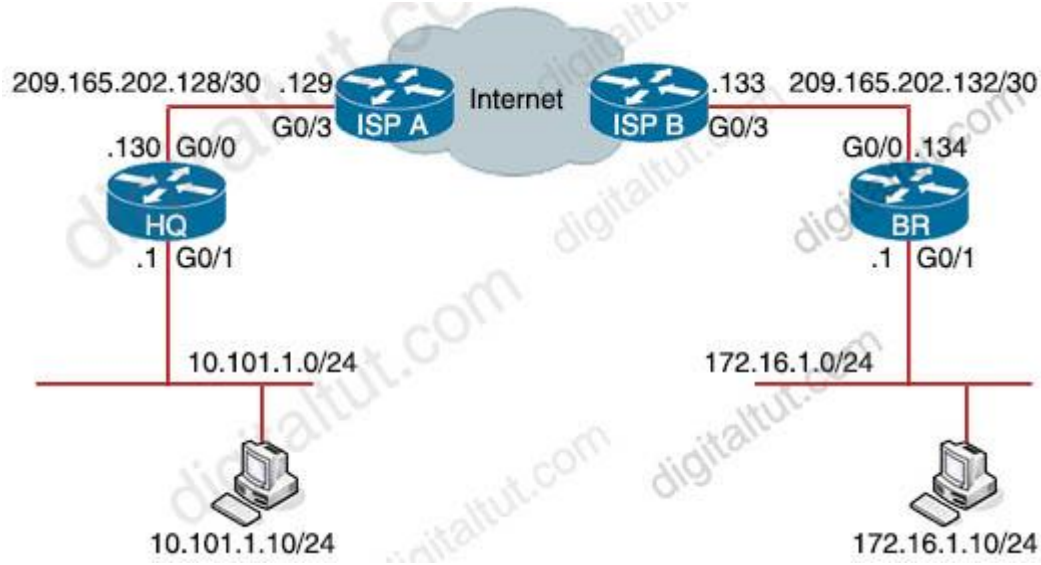
Which command must be applied to Router1 to bring the GRE tunnel to an up/up state?

A. Router1(config-if)#tunnel source Loopback0
B. Router1(config-if)#tunnel source GigabitEthernet0/1
C. Router1(config-if)#tunnel mode gre multipoint
D. Router1(config)#interface tunnel0

Answer: A

Question 8

Refer to the exhibit.




```
> Frame 24: 138 bytes on wire (1104 bits), 138 bytes captured (1104 bits)
on interface 0
> Ethernet II, Src: 50:00:00:01:00:01 (50:00:00:01:00:01), Dst:
50:00:00:02:00:01 (50:00:00:02:00:01)
> Internet Protocol Version 4, Src: 209.165.202.130, Dst: 209.165.202.134
> Generic Routing Encapsulation (IP)
> Internet Protocol Version 4, Src: 10.111.111.1, Dst: 10.111.111.2
> Internet Control Message Protocol
```

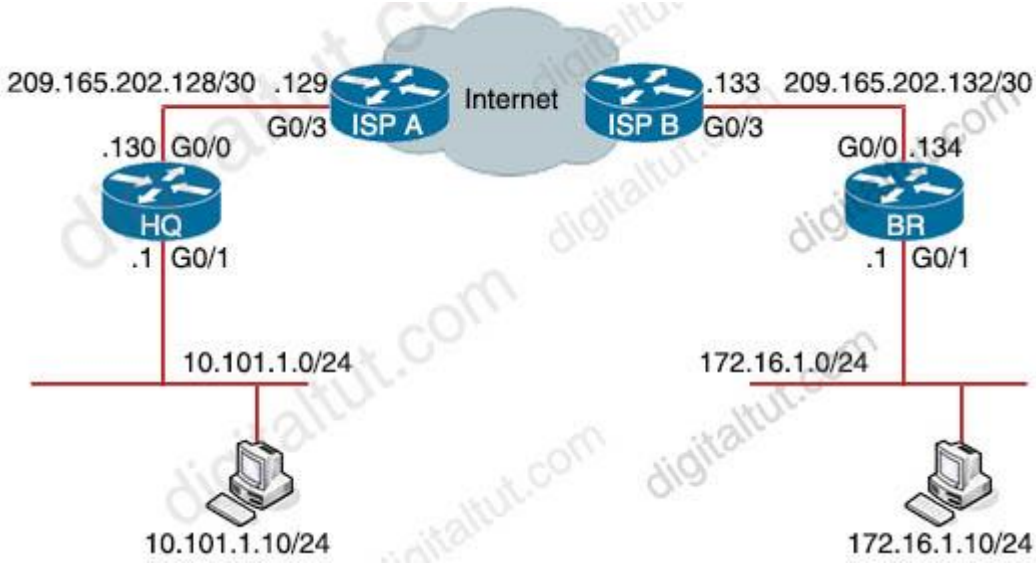
A GRE tunnel has been created between HQ and BR routers. What is the tunnel IP on the HQ router?

A. 209.165.202.130
B. 10.111.111.2
C. 10.111.111.1
D. 209.165.202.134

Answer: C

Question 9

Refer to the exhibit.



Option A interface Tunnel1 ip address 209.165.202.130 255.255.255.252 tunnel source GigabitEthernet0/0 tunnel destination 209.165.202.129	**Option B** interface Tunnel1 ip address 10.111.111.1 255.255.255.0 tunnel source GigabitEthernet0/0 tunnel destination 209.165.202.133
Option C interface Tunnel1 ip address 10.111.111.1 255.255.255.0 tunnel source GigabitEthernet0/0 tunnel destination 209.165.202.134	**Option D** interface Tunnel1 ip address 10.111.111.1 255.255.255.0 tunnel source GigabitEthernet0/0 tunnel destination 209.165.202.129

Which configuration must be applied to the HQ router to set up a GRE tunnel between the HQ and BR routers?

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

Question 10

Which IPv6 migration method relies on dynamic tunnels that use the 2002::/16 reserved address space?

A. 6RD
B. 6to4
C. ISATAP
D. GRE

Answer: B

NAT Questions

https://www.digitaltut.com/nat-questions-2

Question 1

Refer to the exhibit.

```
access-list 1 permit 172.16.1.0 0.0.0.255
ip nat inside source list 1 interface gigabitethernet0/0 overload
```

The inside and outside interfaces in the NAT configuration of this device have been correctly identified. What is the effect of this configuration?

A. dynamic NAT
B. static NAT
C. PAT
D. NAT64

Answer: C

Question 2

Refer to the exhibit. What are two effect of this configuration? (Choose two)

```
access-list 1 permit 10.1.1.0 0.0.0.31
ip nat pool CISCO 209.165.201.1 209.165.201.30 netmask 255.255.255.224
ip nat inside source list 1 pool CISCO
```

A. Inside source addresses are translated to the 209.165.201.0/27 subnet
B. It establishes a one-to-one NAT translation
C. The 10.1.1.0/27 subnet is assigned as the inside global address range
D. The 209.165.201.0/27 subnet is assigned as the outside local address range
E. The 10.1.1.0/27 subnet is assigned as the inside local addresses

Answer: A E

Question 3

Refer to the exhibit.




```
R1(config)# ip nat inside source static 10.70.5.1 10.45.1.7
```

A network architect has partially configured static NAT. which commands should be asked to complete the configuration?

A.
R1(config)#interface GigabitEthernet0/0
R1(config)#ip pat outside

R1(config)#interface GigabitEthernet0/1
R1(config)#ip pat inside

B.
R1(config)#interface GigabitEthernet0/0
R1(config)#ip nat outside

R1(config)#interface GigabitEthernet0/1
R1(config)#ip nat inside

C.
R1(config)#interface GigabitEthernet0/0
R1(config)#ip nat inside

R1(config)#interface GigabitEthernet0/1
R1(config)#ip nat outside

D.
R1(config)#interface GigabitEthernet0/0
R1(config)#ip pat inside

R1(config)#interface GigabitEthernet0/1
R1(config)#ip pat outside

Answer: B

Question 4

Refer to the exhibit.

```
interface FastEthernet0/1
ip address 209.165.200.225 255.255.255.224
```

```
ip nat outside
!
interface FastEthernet0/2
ip address 10.10.10.1 255.255.255.0
ip nat inside
!
access-list 10 permit 10.10.10.0 0.0.0.255
!
```

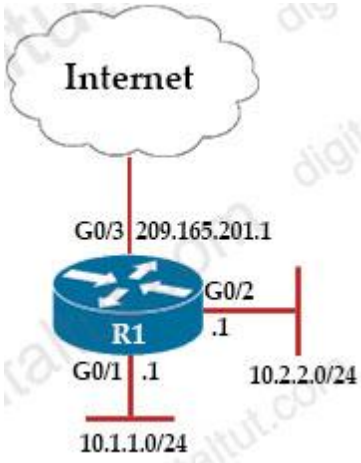
Which command allows hosts that are connected to FastEthernet0/2 to access the Internet?

A. ip nat inside source list 10 interface FastEthernet0/1 overload
B. ip nat outside source static 209.165.200.225 10.10.10.0 overload
C. ip nat inside source list 10 interface FastEthernet0/2 overload
D. ip nat outside source list 10 interface FastEthernet0/2 overload

Answer: A

Question 5

Refer to the exhibit.



An engineer must allow all users in the 10.2.2.0/24 subnet to access the Internet. To conserve address space, the public interface address of 209.165.201.1 must be used for all external communication. Which command set accomplishes these requirements?

Option A	**Option B**
access-list 10 permit 10.2.2.0 0.0.0.255 interface G0/3 ip nat outside	access-list 10 permit 10.2.2.0 0.0.0.255 interface G0/3 ip nat outside

interface G0/2 ip nat inside ip nat inside source list 10 interface G0/2 overload	interface G0/2 ip nat inside ip nat inside source list 10 209.165.201.1
Option C access-list 10 permit 10.2.2.0 0.0.0.255 interface G0/3 ip nat outside interface G0/2 ip nat inside ip nat inside source list 10 interface G0/3	**Option D** access-list 10 permit 10.2.2.0 0.0.0.255 interface G0/3 ip nat outside interface G0/2 ip nat inside ip nat inside source list 10 interface G0/3 overload

A. Option A
B. Option B
C. Option C
D. Option D

Answer: D

STP Questions

https://www.digitaltut.com/stp-questions

Question 1

What is the primary effect of the spanning-tree portfast command?

A. It enables BPDU messages
B. It minimizes spanning-tree convergence time
C. It immediately puts the port into the forwarding state when the switch is reloaded
D. It immediately enables the port in the listening state

Answer: B

Question 2

Refer to the exhibit.



An engineer reconfigures the port-channel between SW1 and SW2 from an access port to a trunk and immediately notices this error in SW1's log.

```
%PM-SP-4-ERR_DISABLE: bpduguard error detected on Gi0/0, putting Gi0/0 in err-disable state.
```

Which command set resolves this error?

A.
Sw1(config)# interface G0/0
Sw1(config-if)# no spanning-tree bpduguard enable
Sw1(config-if)# shut
Sw1(config-if)# no shut

B.
Sw1(config)# interface G0/0
Sw1(config-if)# spanning-tree bpduguard enable
Sw1(config-if)# shut
Sw1(config-if)# no shut

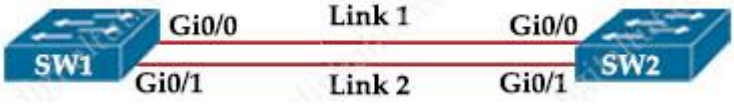
C.
Sw1(config)# interface G0/1
Sw1(config-if)# spanning-tree bpduguard enable
Sw1(config-if)# shut
Sw1(config-if)# no shut

D.
Sw1(config)# interface G0/0
Sw1(config-if)# no spanning-tree bpdufilter
Sw1(config-if)# shut
Sw1(config-if)# no shut

Answer: A

Question 3

Refer to the exhibit. Link1 is a copper connection and Link2 is a fiber connection. The fiber port must be the primary port for all forwarding. The output of the show spanning-tree command on SW2 shows that the fiber port is blocked by spanning tree. An engineer enters the spanning-tree port-priority 32 command on G0/1 on SW2, but the port remains blocked.




```
SW2#show spanning-tree
```

```
 VLAN0010
   Spanning tree enabled protocol ieee
   Root ID     Priority  24596
               Address   0018.7363.4300
               Cost      2
               Port      13 (GigabitEthernet0/0)
               Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

   Bridge ID    Priority 28692 (priority 28672 sys-id-ext 20)
                Address  001b.0d8e.e080
                Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
                Aging Time 300 sec

Interface  Role  Sts  Cost Prio.Nbr  Type
---------- ----  ---- ---- --------  ----
Gi0/0      Root  FWD  4    128.1     P2p
Gi0/1      Atln  BLK  4    32.2      P2p
```

Which command should be entered on the ports that are connected to Link2 to resolve the issue?

A. Enter spanning-tree port-priority 32 on SW1
B. Enter spanning-tree port-priority 224 on SW1
C. Enter spanning-tree port-priority 4 on SW2
D. Enter spanning-tree port-priority 64 on SW2

Answer: A

Question 4

What would be the preferred way to implement a loopless switch network where there are 1500 defined VLANs and it is necessary to load the shared traffic through two main aggregation points based on the VLAN identifier?

A. 802.1D
B. 802.1s
C. 802.1W
D. 802.1AE

Answer: B

Question 5

Refer to the exhibit. Which two commands ensure that DSW1 becomes root bridge for VLAN 10 and 20? (Choose two)

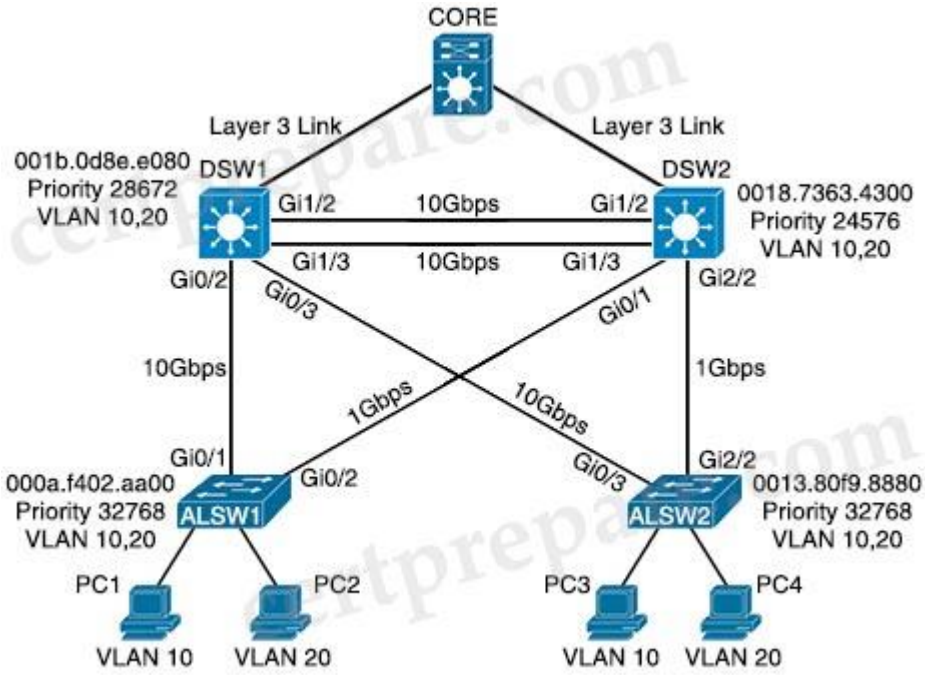
```
DSW1#show spanning-tree

MST1
  Spanning tree enabled protocol mstp
  Root ID     Priority    32769
              Address     0018.7363.4300
              Cost        2
              Port        13 (FastEthernet1/0/11)
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID   Priority 32769 (priority 32768 sys-id- ext 1)
              Address     001b.0d8e.e080
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

Interface        Role  Sts    Cost      Prio.Nbr   Type
---------------- ----- -------- --------  ---------- ------------
Fa1/0/7          Desg FWD  2         128.1      P2p Bound (PVST)
Fa1/0/10         Desg FWD  2         128.12     P2p Bound (PVST)
Fa1/0/11         Root FWD  2         128.13     P2p
Fa1/0/12         Altn BLK  2         128.14     P2p

DSW1#show spanning-tree mst

##### MST1    vlans mapped:   10,20
Bridge          address  001b.0d0e.e000  priority   32769 (32768 sysid 1)
Root            address  0018.7363.4300  priority   32769 (32768 sysid 1)
                port     Fa1/0/11        cost       2       (rem hops 19)

------ output omitted ------
```

A. spanning-tree mstp 1 priority 0
B. spanning-tree mst 1 root primary
C. spanning-tree mst vlan 10,20 priority root
D. spanning-tree mst 1 priority 4096
E. spanning-tree mst 1 priority 1
F. spanning-tree mstp vlan 10,20 root primary

Answer: B D

Question 6

Refer to the exhibit. Assuming all links are functional, which path does PC1 take to reach DSW1?



A. PC1 goes from ALSW1 to DSW1
B. PC1 goes form ALSW1 to DSW2 to ALSW2 to DSW1
C. PC1 goes from ALSW1 to DSW2 to Core to DSW1
D. PC1 goes from ALSW1 to DSW2 to DSW1

Answer: D

Question 7

In a traditional 3 tier topology, an engineer must explicitly configure a switch as the root bridge and exclude it from any further election process for the spanning-tree domain. Which action accomplishes this task?

A. Configure the spanning-tree priority to 32768
B. Configure root guard and portfast on all access switch ports
C. Configure BPDU guard in all switch-to-switch connections
D. Configure the spanning-tree priority equal to 0

Answer: B

Question 8

Refer to the exhibit.

```
DSW2#sh spanning-tree vlan 10

VLAN0010
  Spanning tree enabled protocol ieee
  Root ID     Priority  10
              Address   0018.7363.4300
              Cost      2
              Port      9 (FastEthernet1/0/7)
              Hello Time 2 sec Max Age 20 sec
              Forward Delay 15 sec

  Bridge ID Priority 4106 (priority 4096 sys-id-ext 10)
              Address  001b.0d8e.e080
              Hello Time  2 sec  Max Age 20 sec
              Forward Delay 15 sec
              Aging Time 300 sec

Interface  Role  Sts  Cost Prio.Nbr  Type
---------- ----  ---- ---- --------  ----
Fa1/0/7    Root  FWD  2    128.9     P2p
Fa1/0/10   Desg  FWD  4    128.12    P2p
Fa1/0/11   Desg  FWD  2    128.13    P2p
Fa1/0/12   Desg  FWD  2    128.14    P2p
```

```
DSW2#
*Mar 3 09:33:23.234: #SPANTREE-2-BLOCK_BPDUGUARD: Received BPDU on port Fa1/0/7 with BPDU Guard enabled. Disabling port.
*Mar 3 09:33:23.234: %PM-4-ERR_DISABLE: bpduguard error detected on Fa1/0/7, putting Fa1/0/7 in err-disable state
*Mar 3 09:33:23.678: %SPANTREE-2-BLOCK_BPDUGUARD: Received BPDU on port Fa1/0/7 with BPDU Guard enabled. Disabling port.
*Mar 3 09:33:23.679: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0/7, changed state to down
*Mar 3 09:33:23.701: %LINK-3-UPDOWN: Interface FastEthernet1/0/7, changed state to down
```

An engineer entered the **no spanning-tree bpduguard enable** on interface fa1/0/7 command. Which statement describes the effect of this command?

A. Fa1/0/7 remains in err-disabled state until the shutdown/no shutdown command is entered in the interface configuration mode
B. Interface Fa1/0/7 remains in err-disabled state until the errdisable recovery cause bpduguard command is entered in the interface configuration mode
C. Fa1/0/7 remains in err-disabled state until the errdisable recovery bpduguard command is entered in the interface configuration mode
D. Interface Fa1/0/7 remains in err-disabled state until the spanning-tree portfast bpduguard disable command is entered in the interface configuration mode
E. Interface Fa1/0/7 returns to an up and operational state

Answer: A

DNA Center Questions

https://www.digitaltut.com/dna-center-questions

Question 1

At which layer does Cisco DNA Center support REST controls?

A. EEM applets or scripts
B. Session layer
C. YMAL output from responses to API calls
D. Northbound APIs

Answer: D

Question 2

Which two steps are required for a complete Cisco DNA Center upgrade? (Choose two)

A. golden image selection
B. automation backup
C. proxy configuration
D. application updates
E. system update

Answer: D E

Question 3

Which tool is used in Cisco DNA Center to build generic configurations that are able to be applied on device with similar network settings?

A. Command Runner
B. Template Editor
C. Application Policies
D. Authentication Template

Answer: B

Question 4

Which devices does Cisco DNA Center configure when deploying an IP-based access control policy?

A. All devices integrating with ISE
B. selected individual devices
C. all devices in selected sites
D. all wired devices

Answer: A

Question 5

What does the Cisco DNA Center use to enable the delivery of applications through a network and to yield analytics for innovation?

A. process adapters
B. Command Runner
C. intent-based APIs
D. domain adapters

Answer: C

Question 6

An engineer uses the Design workflow to create a new network infrastructure in Cisco DNA Center. How is the physical network device hierarchy structured?

A. by location
B. by role
C. by organization
D. by hostname naming convention

Answer: A

Question 7

Which three methods does Cisco DNA Center use to discover devices? (Choose three)

A. CDP
B. LLDP
C. SNMP
D. ping
E. NETCONF
F. a specified range of IP addresses

Answer: A B F

Question 8

Which two characteristics define the Intent API provided by Cisco DNA Center? (Choose two)

A. northbound API
B. southbound API
C. device-oriented
D. business outcome oriented
E. procedural

Answer: A D

Question 9

Which method does Cisco DNA Center use to allow management of non-Cisco devices through southbound protocols?

A. It creates device packs through the use of an SDK
B. It obtains MIBs from each vendor that details the APIs available.
C. It uses an API call to interrogate the devices and register the returned data.
D. It imports available APIs for the non-Cisco device in a CSV format.

Answer: A

Question 10

Refer to the exhibit.



Cisco DNA Center has obtained the username of the client and the multiple devices that the client is using on the network. How is Cisco DNA Center getting these context details?

A. Those details are provided to Cisco DNA Center by the Identity Services Engine
B. The administrator had to assign the username to the IP address manually in the user database tool on Cisco DNA Center
C. User entered those details in the Assurance app available on iOS and Android devices
D. Cisco DNA Center pulled those details directly from the edge node where the user connected

Answer: D

Security Questions

https://www.digitaltut.com/security-questions-2

Question 1

Refer to the exhibit. Which privilege level is assigned to VTY users?

```
R1# sh run | begin line con
line con 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
 stoppbits 1
line aux 0
 exec-timeout 0 0
 privilege level 15
 logging synchronous
 stoppbits 1
line vty 0 4
 password 7 03384737389E938
 login
line vty 5 15
 password 7 03384737389E938
 login
!
end

R1#sh run | include aaa | enable
no aaa new-model
R1#
```

A. 1
B. 7
C. 13
D. 15

Answer: A

Question 2

Which technology provides a secure communication channel for all traffic at Layer 2 of the OSI model?

A. MACsec
B. IPsec
C. SSL
D. Cisco Trustsec

Answer: A

Question 3

Which feature does Cisco TrustSec use to provide scalable, secure communication throughout a network?

A. security group tag ACL assigned to each port on a switch
B. security group tag number assigned to each port on a network
C. security group tag number assigned to each user on a switch
D. security group tag ACL assigned to each router on a network

Answer: C

Question 4

How does Cisco Trustsec enable more access controls for dynamic networking environments and data centers?

A. uses flexible NetFlow
B. assigns a VLAN to the endpoint
C. classifies traffic based on the contextual identity of the endpoint rather than its IP address
D. classifies traffic based on advanced application recognition

Answer: C

Question 5

What is the difference between the enable password and the enable secret password when password encryption is enable on an IOS device?

A. The enable password is encrypted with a stronger encryption method
B. There is no difference and both passwords are encrypted identically
C. The enable password cannot be decrypted
D. The enable secret password is protected via stronger cryptography mechanisms

Answer: D

Question 6

Which NGFW mode block flows crossing the firewall?

A. Passive
B. Tap
C. Inline tap
D. Inline

Answer: D

Question 7

Which method does the enable secret password option use to encrypt device passwords?

A. AES
B. CHAP
C. PAP
D. MD5

Answer: D

Question 8

An engineer must protect their company against ransom ware attacks. Which solution allows the engineer to block the execution stage and prevent file encryption?

A. Use Cisco AMP deployment with the Malicious Activity Protection engine enabled
B. Use Cisco AMP deployment with the Exploit Prevention engine enabled
C. Use Cisco Firepower and block traffic to TOR networks
D. Use Cisco Firepower with Intrusion Policy and snort rules blocking SMB exploitation

Answer: A

Question 9

Which deployment option of Cisco NGFW provides scalability?

A. tap
B. clustering

C. inline tap
D. high availability

Answer: B

Question 10

Refer to the exhibit.

```
Router#sh run | b vty

line vty 0 4
 session-timeout 30
 exec-timeout 20 0
 session-limit 30
 login local
line vty 5 15
 session-timeout 30
 exec-timeout 20 0
 session-limit 30
 login local
```

Security policy requires all idle-exec sessions to be terminated in 600 seconds. Which configuration achieves this goal?

A. line vty 0 15
exec-timeout 10 0

B. line vty 0 15
exec-timeout

C. line vty 0 15
absolute-timeout 600

D. line vty 0 4
exec-timeout 600

Answer: A

Question 11

Refer to the exhibit.



An engineer is designing a guest portal on Cisco ISE using the default configuration. During the testing phase, the engineer receives a warning when displaying the guest portal. Which issue is occurring?

A. The server that is providing the portal has an expired certificate
B. The server that is providing the portal has a self-signed certificate
C. The connection is using an unsupported protocol
D. The connection is using an unsupported browser

Answer: B

Access-list Questions

https://www.digitaltut.com/access-list-questions

Question 1

Which standard access control entry permits from odd-numbered hosts in the 10.0.0.0/24 subnet?

A. Permit 10.0.0.0 0.0.0.1
B. Permit 10.0.0.1 0.0.0.0

C. Permit 10.0.0.1 0.0.0.254
D. Permit 10.0.0.0 255.255.255.254

Answer: C

Question 2

Refer to the exhibit. An engineer must block all traffic from a router to its directly connected subnet 209.165.200.0/24. The engineer applies access control list EGRESS in the outbound direction on the GigabitEthemet0/0 interface of the router. However, the router can still ping hosts on the 209.165.200.0/24 subnet. Which explanation of this behavior is true?

```
Extended IP access list EGRESS
10 permit ip 10.0.0.0 0.0.0.255 any
!
---output omitted---
!
interface GigabitEthernet0/0
 ip address 209.165.200.255 255.255.255.0
 ip access-group EGRESS out
 duplex auto
 speed auto
 media-type rj45
!
```

A. Access control lists that are applied outbound to a router interface do not affect traffic that is sourced from the router
B. Only standard access control lists can block traffic from a source IP address
C. After an access control list is applied to an interface, that interface must be shut and no shut for the access control list to take effect
D. The access control list must contain an explicit deny to block traffic from the router

Answer: A

Question 3

A client with IP address 209.165.201.25 must access a web server on port 80 at 209.165.200.225. To allow this traffic, an engineer must add a statement to an access control list that is applied in the inbound direction on the port connecting to the web server. Which statement allows this traffic?

A. permit tcp host 209.165.201.25 eq 80 host 209.165.200.225
B. permit tcp host 209.165.201.25 host 209.165.200.225 eq 80
C. permit tcp host 209.165.200.225 eq 80 host 209.165.201.25
D. permit tcp host 209.165.200.225 host 209.165.201.25 eq 80

Answer: C

Question 4

Which access controls list allows only TCP traffic with a destination port range of 22-443, excluding port 80?

A. Deny tcp any any eq 80
Permit tcp any any gt 21 lt 444

B. Permit tcp any any neq 80

C. Permit tcp any any range 22 443
Deny tcp any any eq 80

D. Deny tcp any any neq 80
Permit tcp any any range 22 443

Answer: A (?)

Question 5

Refer to the exhibit. An engineer must modify the access control list EGRESS to allow all IP traffic from subnet 10.1.10.0/24 to 10.1.2.0/24. The access control list is applied in the outbound direction on router interface GigabitEthemet 0/1.

```
Extended IP access list EGRESS
10 permit ip 10.1.100.0 0.0.0.255 10.1.2.0 0.0.0.255
20 deny ip any any
```

Which configuration commands can the engineer use to allow this traffic without disrupting existing traffic flows?

A. config t
ip access-list extended EGRESS
permit ip 10.1.10.0 255.255.255.0 10.1.2.0 255.255.255.0

B. config t
ip access-list extended EGRESS
5 permit ip 10.1.10.0 0.0.0.255 10.1.2.0 0.0.0.255

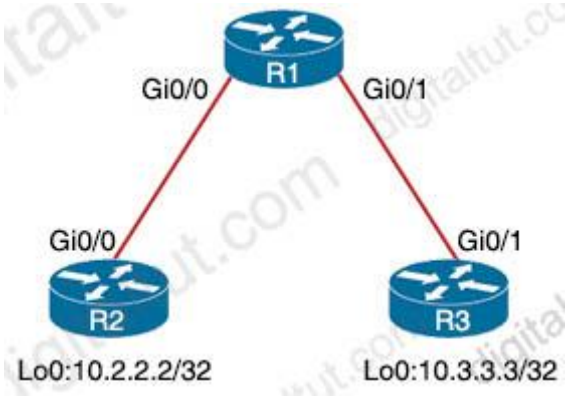
C. config t
ip access-list extended EGRESS2
permit ip 10.1.10.0 0.0.0.295 10.1.2.0 0.0.0.299
permit ip 10.1.100.0 0.0.0.299 10.1.2.0 0.0.0.299
deny ip any any
!
interface g0/1
no ip access-group EGRESS out
ip access-group EGRESS2 out

D. config t
ip access-list extended EGRESS
permit ip 10.1.10.0 0.0.0.255 10.1.2.0 0.0.0.255

Answer: B

Question 6

Refer to the exhibit.



An engineer must deny Telnet traffic from the loopback interface of router R3 to the loopback interface of router R2 during the weekend hours. All other traffic between the loopback interfaces of routers R3 and R2 must be allowed at all times. Which command accomplish this task?

A.
R3(config)#time-range WEEKEND
R3(config-time-range)#periodic Saturday Sunday 00:00 to 23:59

R3(config)#access-list 150 deny tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R3(config)#access-list 150 permit ip any any time-range WEEKEND

R3(config)#interface Gi0/1
R3(config-if)#ip access-group 150 out

B.
R1(config)#time-range WEEKEND
R1(config-time-range)#periodic Friday Sunday 00:00 to 00:00

R1(config)#access-list 150 deny tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R1(config)#access-list 150 permit ip any any

R1(config)#interface Gi0/1
R1(config-if)#ip access-group 150 in

C.
R1(config)#time-range WEEKEND
R1(config-time-range)#periodic weekend 00:00 to 23:59

R1(config)#access-list 150 deny tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R1(config)#access-list 150 permit ip any any

R1(config)#interface Gi0/1
R1(config-if)#ip access-group 150 in

D.
R3(config)#time-range WEEKEND
R3(config-time-range)#periodic weekend 00:00 to 23:59

R3(config)#access-list 150 deny tcp host 10.3.3.3 host 10.2.2.2 eq 23 time-range WEEKEND
R3(config)#access-list 150 permit ip any any time-range WEEKEND

R3(config)#interface Gi0/1
R3(config-if)#ip access-group 150 out

Answer: C

Question 7

What is the result of applying this access control list?

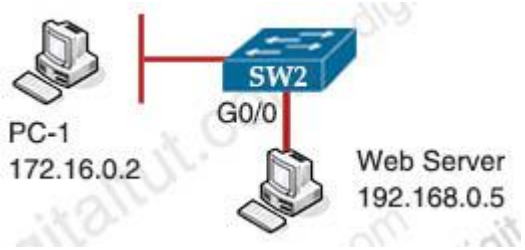
```
ip access-list extended STATEFUL
10 permit tcp any any established
20 deny ip any any
```

A. TCP traffic with the DF bit set is allowed
B. TCP traffic with the SYN bit set is allowed
C. TCP traffic with the ACK bit set is allowed
D. TCP traffic with the URG bit set is allowed

Answer: C

Question 8

Refer to the exhibit. PC-1 must access the web server on port 8080. To allow this traffic, which statement must be added to an access control list that is applied on SW2 port G0/0 in the inbound direction?



A. permit host 172.16.0.2 host 192.168.0.5 eq 8080
B. permit host 192.168.0.5 host 172.16.0.2 eq 8080
C. permit host 192.168.0.5 eq 8080 host 172.16.0.2
D. permit host 192.168.0.5 it 8080 host 172.16.0.2

Answer: C

Question 9

Which outbound access list, applied to the WAN interface of a router, permits all traffic except for http traffic sourced from the workstation with IP address 10.10.10.1?

A. ip access-list extended 200
deny tcp host 10.10.10.1 eq 80 any
permit ip any any

B. ip access-list extended 10
deny tcp host 10.10.10.1 any eq 80
permit ip any any

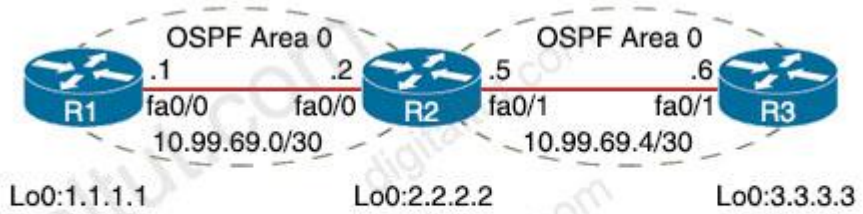
C. ip access-list extended NO_HTTP
deny tcp host 10.10.10.1 any eq 80

D. ip access-list extended 100
deny tcp host 10.10.10.1 any eq 80
permit ip any any

Answer: D

Question 10

Refer to the exhibit.




```
R1#traceroute
Protocol [ip]:
Target IP address: 3.3.3.3
Source address: 1.1.1.1
Numeric display [n]:
Timeout in seconds [3]:
Probe count [3]:
Minimum Time to Live [1]:
Maximum Time to Live [30]:
Port Number [33434]:
Loose, Strict, Record, Timestamp, Verbose[none]: Record
Number of hops [9]:
Loose, Strict, Record, Timestamp, Verbose [RV]:
Type escape sequence to abort.

Continued --->
```

```
Tracing the route to 3.3.3.3
 1 10.99.69.2 36 msec
Received packet has options
Total option bytes = 40, padded length=40
 Record route:
   (10.99.69.1) <*>
   (0.0.0.0)
   (0.0.0.0)
  End of list
---output omitted---

 2 10.99.69.6  !A
Received packet has options
Total option bytes = 40, padded length=40
 Record route:
   (10.99.69.1)
   (10.99.69.5) <*>
   (0.0.0.0)
   (0.0.0.0)
  End of list
  !A
---output omitted---
```

The traceroute fails from R1 to R3. What is the cause of the failure?

A. An ACL applied inbound on fa0/1 of R3 is dropping the traffic
B. An ACL applied inbound on loopback0 of R2 is dropping the traffic
C. The loopback on R3 is in a shutdown state
D. Redistribution of connected routes into OSPF is not configured

Answer: A

Access-list Questions 2

https://www.digitaltut.com/access-list-questions-2

Question 1

An engineer must configure a ACL that permits packets which include an ACK in the TCP header. Which entry must be included in the ACL?

A. access-list 110 permit tcp any any eq 21 tcp-ack
B. access-list 10 permit ip any any eq 21 tcp-ack
C. access-list 10 permit tcp any any eq 21 established
D. access-list 110 permit tcp any any eq 21 established

Answer: D

Question 2

Refer to the exhibit.

```
line vty 0 4
 session-timeout 30
 exec-timeout 120 0
 session-limit 30
 login local
line vty 5 15
 session-timeout 30
 exec-timeout 30 0
 session-limit 30
 login local
```

Only administrators from the subnet 10.10.10.0/24 are permitted to have access to the router. A secure protocol must be used for the remote access and management of the router instead of clear-text protocols. Which configuration achieves this goal?

Option A	**Option B**
access-list 23 permit 10.10.10.0 0.0.0.255 line vty 0 4 access-class 23 in transport input ssh	access-list 23 permit 10.10.10.0 0.0.0.255 line vty 0 15 access-class 23 in transport input ssh
Option C	**Option D**
access-list 23 permit 10.10.10.0 0.0.0.255 line vty 0 15 access-class 23 out transport input all	access-list 23 permit 10.10.10.0 255.0.0.0 line vty 0 15 access-class 23 in transport input ssh

A. Option A
B. Option B
C. Option C
D. Option D

Answer: B

Multicast Questions

https://www.digitaltut.com/multicast-questions-2

Question 1

Which statement about multicast RPs is true?

A. RPs are required only when using protocol independent multicast dense mode
B. RPs are required for protocol independent multicast sparse mode and dense mode
C. By default, the RP is needed periodically to maintain sessions with sources and receivers
D. By default, the RP is needed only to start new sessions with sources and receivers

Answer: D

Question 2

What mechanism does PIM use to forward multicast traffic?

A. PIM sparse mode uses a pull model to deliver multicast traffic
B. PIM dense mode uses a pull model to deliver multicast traffic
C. PIM sparse mode uses receivers to register with the RP
D. PIM sparse mode uses a flood and prune model to deliver multicast traffic

Answer: A

Question 3

What is the role of the RP in PIM sparse mode?

A. The RP responds to the PIM join messages with the source of requested multicast group
B. The RP maintains default aging timeouts for all multicast streams requested by the receivers
C. The RP acts as a control-plane node and does not receive or forward multicast packets
D. The RP is the multicast that is the root of the PIM-SM shared multicast distribution tree

Answer: D

Question 4

What is the purpose of an RP in PIM?

A. secure the communication channel between the multicast sender and receiver.
B. ensure the shortest path from the multicast source to the receiver.
C. receive IGMP joins from multicast receivers.
D. send join messages toward a multicast source SPT

Answer: C

Question 5

Which router is elected the IGMP Querier when more than one router is in the same LAN segment?

A. The router with the shortest uptime
B. The router with the lowest IP address
C. The router with the highest IP address
D. The router with the longest uptime

Answer: B

NTP Questions

https://www.digitaltut.com/ntp-questions-2

Question 1

What NTP stratum level is a server that is connected directly to an authoritative time source?

A. Stratum 0
B. Stratum 1
C. Stratum 14
D. Stratum 15

Answer: B

Question 2

Which two security features are available when implementing NTP? (Choose two)

A. encrypted authentication mechanism
B. clock offset authentication
C. broadcast association mode
D. access list based restriction scheme
E. symmetric server passwords

Answer: A D

Question 3

Which two mechanisms are available to secure NTP? (Choose two)

A. IP prefix list-based
B. IPsec
C. TACACS-based authentication
D. IP access list-based
E. Encrypted authentication

Answer: D E

Question 4

Why would a log file contain a * next to the date?

A. The network device is not configured to use NTP time stamps for logging.
B. The network device was unable to reach the NTP server when the log messages were recorded.
C. The network device is not configured to use NTP
D. The network device was receiving NTP time when the log messages were recorded

Answer: B

CoPP Questions

https://www.digitaltut.com/copp-questions

Question 1

Which configuration restricts the amount of SSH that a router accepts 100 kbps?

Option A	**Option B**

class-map match-all CoPP_SSH
 match access-group name CoPP_SSH
!
policy-map CoPP_SSH
 class CoPP_SSH
  police cir 100000
  exceed-action drop
!
!
!
interface GigabitEthernet0/1
 ip address 209.165.200.225 255.255.255.0
	class-map match-all CoPP_SSH
	 match access-group name CoPP_SSH
	!
	policy-map CoPP_SSH
	 class CoPP_SSH
	  police cir CoPP_SSH
	  exceed-action drop
	!
	!
	!
	interface GigabitEthernet0/1
	 ip address 209.165.200.225 255.255.255.0

ip access-group CoPP_SSH out duplex auto speed auto media-type rj45 service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH permit tcp any any eq 22 !	ip access-group CoPP_SSH out duplex auto speed auto media-type rj45 service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH deny tcp any any eq 22 !
Option C class-map match-all CoPP_SSH match access-group name CoPP_SSH ! policy-map CoPP_SSH class CoPP_SSH police cir 100000 exceed-action drop ! ! ! control-plane service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH permit tcp any any eq 22 !	**Option D** class-map match-all CoPP_SSH match access-group name CoPP_SSH ! policy-map CoPP_SSH class CoPP_SSH police cir 100000 exceed-action drop ! ! ! control-plane transit service-policy input CoPP_SSH ! ip access-list extended CoPP_SSH permit tcp any any eq 22 !

A. Option A
B. Option B
C. Option C
D. Option D

Answer: C

Question 2

Refer to the exhibit. An engineer configures CoPP and enters the show command to verify the implementation. What is the result of the configuration?



A. All traffic will be policed based on access-list 120
B. If traffic exceeds the specified rate, it will be transmitted and remarked
C. Class-default traffic will be dropped
D. ICMP will be denied based on this configuration

Answer: A

Automation Questions

https://www.digitaltut.com/automation-questions

Question 1

Which requirement for an Ansible-managed node is true?

A. It must be a Linux server or a Cisco device
B. It must have an SSH server running
C. It must support ad hoc commands.
D. It must have an Ansible Tower installed

Answer: B

Question 2

Which statement about TLS is true when using RESTCONF to write configurations on network devices?

A. It is provided using NGINX acting as a proxy web server
B. It is no supported on Cisco devices
C. It required certificates for authentication
D. It is used for HTTP and HTTPs requests

Answer: A

Question 3

Which two operations are valid for RESTCONF? (Choose two)

A. HEAD
B. REMOVE
C. PULL
D. PATCH
E. ADD
F. PUSH

Answer: A D

Question 4

Which exhibit displays a valid JSON file?

A. {
“hostname”: “edge_router_1”
“interfaces”: {
“GigabitEthernet1/1”
“GigabitEthernet1/2”
“GigabitEthernet1/3”
}
}

B. {
“hostname”: “edge_router_1”
“interfaces”: {
“GigabitEthernet1/1”,
“GigabitEthernet1/2”,
“GigabitEthernet1/3”,
},
}

C. {
“hostname”: “edge_router_1”
“interfaces”: [
“GigabitEthernet1/1”

“GigabitEthernet1/2”
“GigabitEthernet1/3”
]
}

D. {
“hostname”: “edge_router_1”,
“interfaces”: [
“GigabitEthernet1/1”,
“GigabitEthernet1/2”,
“GigabitEthernet1/3”
]
}

Answer: D

Question 5

Which method creates an EEM applet policy that is registered with EEM and runs on demand or manually?

A. event manager applet ondemand
event register
action 1.0 syslog priority critical msg ‘This is a message from ondemand’

B. event manager applet ondemand
event manual
action 1.0 syslog priority critical msg ‘This is a message from ondemand’

C. event manager applet ondemand
event none
action 1.0 syslog priority critical msg ‘This is a message from ondemand’

D. event manager applet ondemand
action 1.0 syslog priority critical msg ‘This is a message from ondemand’

Answer: C

Question 6

What does this EEM applet event accomplish?

“event snmp oid 1.3.6.1.3.7.1.5.1.2.4.2.9 get-type next entry-op ge entry-val 75 poll-interval 5”

A. It issues email when the value is greater than 75% for five polling cycles
B. It reads an SNMP variable, and when the value exceeds 75%, it triggers an action
C. It presents a SNMP variable that can be interrogated
D. Upon the value reaching 75%, a SNMP event is generated and sent to the trap server

Answer: B

Question 7

What is the structure of a JSON web token?

A. three parts separated by dots header payload, and signature
B. header and payload
C. three parts separated by dots version header and signature
D. payload and signature

Answer: A

Question 8

Refer to the exhibit. Which two statements about the EEM applet configuration are true? (Choose two)

```
event manager applet LARGECONFIG
  event cli pattern "show running-config" sync yes
  action 1.0 puts "Warning! This device has a VERY LARGE configuration
        and may take some time to process"
  action 1.1 puts nonewline "Do you wish to continue [Y/N]"
  action 1.2 gets response
  action 1.3 string toupper "$response"
  action 1.4 string match "$_string_result" "Y"
  action 2.0 if $_string_result eq 1
  action 2.1 cli command "enable”
  action 2.2 cli command "show running-config"
action 2.3 puts $_cli_result
action 2.4 cli command "exit"
action 2.9 end
```

A. The EEM applet runs before the CLI command is executed
B. The EEM applet runs after the CLI command is executed
C. The EEM applet requires a case-insensitive response
D. The running configuration is displayed only if the letter Y is entered at the CLI

Answer: A D

Question 9

Refer to the exhibit. Which network script automation option or tool is used in the exhibit?

```
https://mydevice.mycompany.com/getstuff?queryName=errors&queryResults=yes
```

A. EEM
B. Python
C. Bash script
D. NETCONF
E. REST

Answer: E

Question 10

Which two protocols are used with YANG data models? (Choose two)

A. HTTPS
B. SSH
C. RESTCONF
D. TLS
E. NETCONF

Answer: C E

Question 11

Which protocol does REST API rely on to secure the communication channel?

A. TCP
B. HTTPS
C. SSH
D. HTTP

Answer: B

Question 12

Which JSON syntax is valid?

A. {“switch”:”name”:”dist1″,”interfaces”:[“gig1″,”gig2″,”gig3”]}
B. {‘switch’:(‘name’:’dist1′,’interfaces’:[‘gig1′,’gig2′,’gig3’])}
C. {“switch”:{“name”:”dist1″,”interfaces”:[“gig1″,”gig2″,”gig3”]}}
D. {/”switch/”:{/”name/”:”dist1″,/”interfaces/”:[“gig1″,”gig2″,”gig3”]}}

Answer: C

Automation Questions 2

https://www.digitaltut.com/automation-questions-2

Question 1

Which statements are used for error handling in Python?

A. try/catch
B. try/except
C. block/rescue
D. catch/release

Answer: B

Question 2

Refer to the exhibit. Which HTTP JSON response does the python code output give?

```
PYTHON CODE
import requests
import json

url='http://YOURIP/ins'
switchuser='USERID'
switchpassword='PASSWORD'

myheaders={'content-type':'application/json'}
payload={
 "ins_api": {
   "version":"1.0",
   "type":"cli_show",
   "chunk":"0",
   "sid":"1",
   "input":"show version",
   "output_format":"json"
 }
}
response = requests.post(url,data=json.dumps(payload),
headers=myheaders,auth=(switchuser,switchpassword)).json()

print(response['ins_api']['outputs']['output']['body']['kickstart_ver_str'])
================================================================================
====================================
HTTP JSON Response:
{
 "ins_api": {
  "type": "cli_show",
  "version":"1.0",
```

```
  "sid":"eoc",
  "outputs":{
   "output":{
    "input":"show version",
    "msg":"Success",
    "code":"200",
    "body":{
     "bios_ver_str":"07.61",
     "kickstart_ver_str":"7.0(3)I7(4)",
     "bios_cmpl_time":"04/08/2017",
     "kick_file_name":"bootflash:///nxos.7.0.3.I7.4.bin",
     "kick_cmpl_time":"6/14/1970 09:49:04",
     "chassis_id": "Nexus9000 93180YC-EX chassis",
     "cpu_name": "Intel(R) Xeon(R) CPU @1.80GHz",
     "memory": 24633488,
     "mem_type":"kB",
     "rr_usecs":134703,
     "rr_ctime":"Sun Mar 10 15:41:46 2019",
     "rr_reason": "Reset Requested by CLI command reload",
     "rr_sys_ver":"7.0(3)I7(4)",
     "rr_service":"",
     "manufacturer": "Cisco Systems, Inc",
     "TABLE_package_list": {
      "ROW_package_list": {
       "package_id": {}
      }
     }
    }
   }
  }
 }
}
```

A. NameError: name ‘json’ is not defined
B. KeyError ‘kickstart_ver_str’
C. 7.61
D. 7.0(3)I7(4)

Answer: D

Question 3

Which data modeling language is commonly used by NETCONF?

A. HTML
B. XML
C. YANG
D. REST

Answer: C

Question 4

A response code of 404 is received while using the REST API on Cisco DNA Center to POST to this URL

/dna/intent/api/v1 /template-programmer/project

What does the code mean?

A. The client made a request a resource that does not exist
B. The server has not implemented the functionality that is needed to fulfill the request
C. The request accepted for processing, but the processing was not completed
D. The POST/PUT request was fulfilled and a new resource was created, information about the resource is in the response body

Answer: A

Question 5

Which HTTP status code is the correct response for a request with an incorrect password applied to a REST API session?

A. HTTP Status Code 200
B. HTTP Status Code 302
C. HTTP Status Code 401
D. HTTP Status Code 504

Answer: C

Question 6

In which part of the HTTP message is the content type specified?

A. HTTP method
B. URI
C. header
D. body

Answer: C

Question 7

What do Cisco DNA southbound APIs provide?

A. Interface between the controller and the network devices
B. NETCONF API interface for orchestration communication

C. RESTful API interface for orchestrator communication
D. Interface between the controller and the consumer

Answer: A

Question 8

Which method displays text directly into the active console with a synchronous EEM applet policy?

A. event manager applet boom
event syslog pattern ‘UP’
action 1.0 gets ‘logging directly to console’

B. event manager applet boom
event syslog pattern ‘UP’
action 1.0 syslog priority direct msg ‘log directly to console’

C. event manager applet boom
event syslog pattern ‘UP’
action 1.0 puts ‘logging directly to console’

D. event manager applet boom
event syslog pattern ‘UP’
action 1.0 string ‘logging directly to console’

Answer: C

Question 9

Refer to the exhibit. What is the JSON syntax that is formed the data?

```
Name is Bob Johnson
Age is 76
Is alive

Favorite foods are:
+ Cereal
+ Mustard
+ Onions
```

A. Name: Bob, Johnson, Age: 76, Alive: true, Favourite Foods. [Cereal, “Mustard”, “Onions}}
B. Name”, “Bob Johnson”, “Age”, 76, “Alive”, true, “favourite Foods”, [“Cereal, “Mustard”, Onions”}}
C. Name’, ‘Bob Johnson,’ ‘Age’, 76, ‘Alive’, true, ‘favourite Foods’ ‘Cereal Mustard’,

‘Onions’}
D. Name”, “Bob Johnson”, “Age”: Seventysix, “Alive” true, “favourite Foods” ,[Cereal” “Mustard” “Onions”}}
E. {“Name”:”Bob Johnson”,”age”:76,”alive”:true,”favorite foods”:[“Cereal”,”Mustard”,”Onions”]}

Answer: E

Question 10

Which statement about agent-based versus agentless configuration management tools is true?

A. Agentless tools require no messaging systems between master and slaves.
B. Agentless tools use proxy nodes to interface with slave nodes.
C. Agent-based tools do not require a high-level language interpreter such as Python or Ruby on slave nodes.
D. Agent-based tools do not require installation of additional software packages on the slave nodes.

Answer: A

Question 11

What is a benefit of data modeling languages like YANG?

A. They enable programmers to change or write their own application within the device operating system.
B. They create more secure and efficient SNMP OIDs.
C. They make the CLI simpler and more efficient.
D. They provide a standardized data structure, which results in configuration scalability and consistency.

Answer: D

Question 12

Which variable in an EEM applet is set when you use the sync yes option?

A. $_cli_result
B. $_result
C. $_string_result
D. $_exit_status

Answer: D

Automation Questions 3

https://www.digitaltut.com/automation-questions-3

Question 1

Which protocol infers that a YANG data model is being used?

A. SNMP
B. REST
C. RESTCONF
D. NX-API

Answer: C

Question 2

Which algorithms are used to secure REST API from brute attacks and minimize the impact?

A. SHA-512 and SHA-384
B. MD5 algorithm-128 and SHA-384
C. SHA-1, SHA-256, and SHA-512
D. PBKDF2, BCrypt, and SCrypt

Answer: D

Question 3

A network administrator is preparing a Python script to configure a Cisco IOS XE-based device on the network. The administrator is worried that colleagues will make changes to the device while the script is running. Which operation of the client manager in prevent colleague making changes to the device while the script is running?

A. m.lock(config='running')
B. m.lock(target='running')
C. m.freeze(target='running')
D. m.freeze(config='running')

Answer: B

Question 4

Which method of account authentication does OAuth 2.0 within REST APIs?

A. username/role combination
B. access tokens
C. cookie authentication
D. basic signature workflow

Answer: B

Question 5

Which characteristic distinguishes Ansible from Chef?

A. Ansible lacks redundancy support for the master server. Chef runs two masters in an active/active mode
B. Ansible uses Ruby to manage configurations. Chef uses YAML to manage configurations
C. Ansible pushes the configuration to the client. Chef client pulls the configuration from the server
D. The Ansible server can run on Linux, Unix or Windows. The Chef server must run on Linux or Unix

Answer: C

Question 6

Refer to the exhibit. An engineer is using XML in an application to send information to a RESTCONF-enabled device. After sending the request, the engineer gets this response message and a HTTP response code of 400. What do these responses tell the engineer?

```
<errors xmlns="urn:ietf:params:xml:ns:yang:ietf-restconf">
  <error>
    <error-message>End-of-file reached in XML
stream</error-message>
      <error-path>/ietf-interfaces:interfaces/interface=Giga
bitEthernet2</error-path>
      <error-tag>malformed-message</error-tag>
      <error-type>application</error-type>
  </error>
</errors>
```

A. POST was used instead of PUT to update
B. The Accept header sent was application/xml
C. The Content-Type header sent was application/xml.
D. JSON body was used

Answer: B

Question 7

How is a data modeling language used?

A. To enable data to be easily structured, grouped validated, and replicated
B. To represent finite and well-defined network elements that cannot be changed
C. To model the flows of unstructured data within the infrastructure
D. To provide human readability to scripting languages

Answer: A

Question 8

Refer to the exhibit. What does the error message relay to the administrator who is trying to configure a Cisco IOS device?

```
<?xml version="1.0" encoding="utf-8"?>
  <data xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"/>
```

A. A NETCONF request was made for a data model that does not exist.
B. The device received a valid NETCONF request and serviced it without error.
C. A NETCONF message with valid content based on the YANG data models was made, but the request failed.
D. The NETCONF running datastore is currently locked.

Answer: A

Question 9

Refer to the exhibit. What does the snippet of code achieve?

```
with manager.connect(host=192.168.0.1, port=22,
      username='admin', password='password1', hostkey_verify=True,
      device_params={'name':'nexus'}) as m:
```

A. It creates an SSH connection using the SSH key that is stored and the password is ignored
B. It creates a temporary connection to a Cisco Nexus device and retrieves a token to be used for API calls
C. It opens an ncclient connection to a Cisco Nexus device and maintains it for the duration of the context
D. It opens a tunnel and encapsulates the login information, if the host key is correct

Answer: C

Question 10

What is used to validate the authenticity of the client and is sent in HTTP requests as a JSON object?

A. SSH
B. HTTPS
C. JWT
D. TLS

Answer: C

Question 11

Refer to the exhibit.

```
Make is Gocar
Model is Zoom

Features are
+ Power Windows
+ Manual Drive
+ Auto AC
```

What is the JSON syntax that is formed from the data?

A. Make”:’Gocar, “Model’: “Zoom”, “Features”: [“Power Windows”, “Manual Dnve”, “Auto AC”]}
B. (“Make”:[“Gocar”, “Model”: “Zoom”], Features”: [“Power Windows”, “Manual Drive”, “Auto AC”]}
C. {“Make”: Gocar, “Model”: Zoom, “Features”: Power Windows, Manual Drive, Auto AC}
D. “Make”: “Gocar”, “Model”: “Zoom”, “Features”: [“Power Windows”, “Manual Drive”, “Auto AC”]

Answer: D

Miscellaneous Questions

https://www.digitaltut.com/miscellaneous-questions-2

Question 1

A network administrator is implementing a routing configuration change and enables routing debugs to track routing behavior during the change. The logging output on the terminal is interrupting the command typing process. Which two actions can the network administrator take to minimize the possibility of typing commands incorrectly? (Choose two)

A. Configure the logging synchronous global configuration command
B. Configure the logging delimiter feature
C. Configure the logging synchronous command under the vty
D. Press the TAB key to reprint the command in a new line
E. Increase the number of lines on the screen using the terminal length command

Answer: C D

Question 2

Which action is performed by Link Management Protocol in a Cisco stackwise virtual domain?

A. It discovers the stackwise domain and brings up SVL interfaces
B. It rejects any unidirectional link traffic forwarding
C. It determines if the hardware is compatible to form the stackwise virtual domain
D. It determines which switch becomes active or standby

Answer: B

Question 3

An engineer reviews a router's logs and discovers the following entry. What is the event's logging severity level?

```
Router# *Feb 03 11:13:44 334: %LINK-3-UPDOWN: Interface GigabitEthernet0/1, changed state to up
```

A. error
B. notification
C. informational
D. warning

Answer: A

Question 4

What does Call Admission Control require the client to send in order to reserve the bandwidth?

A. SIP flow information
B. Wi-Fi multimedia
C. traffic specification
D. VoIP media session awareness

Answer: C

Question 5

What are two considerations when using SSO as a network redundancy feature? (Choose two)

A. must be combined with NSF to support uninterrupted Layer 2 operations
B. must be combined with NSF to support uninterrupted Layer 3 operations
C. both supervisors must be configured separately
D. the multicast state is preserved during switchover
E. requires synchronization between supervisors in order to guarantee continuous connectivity

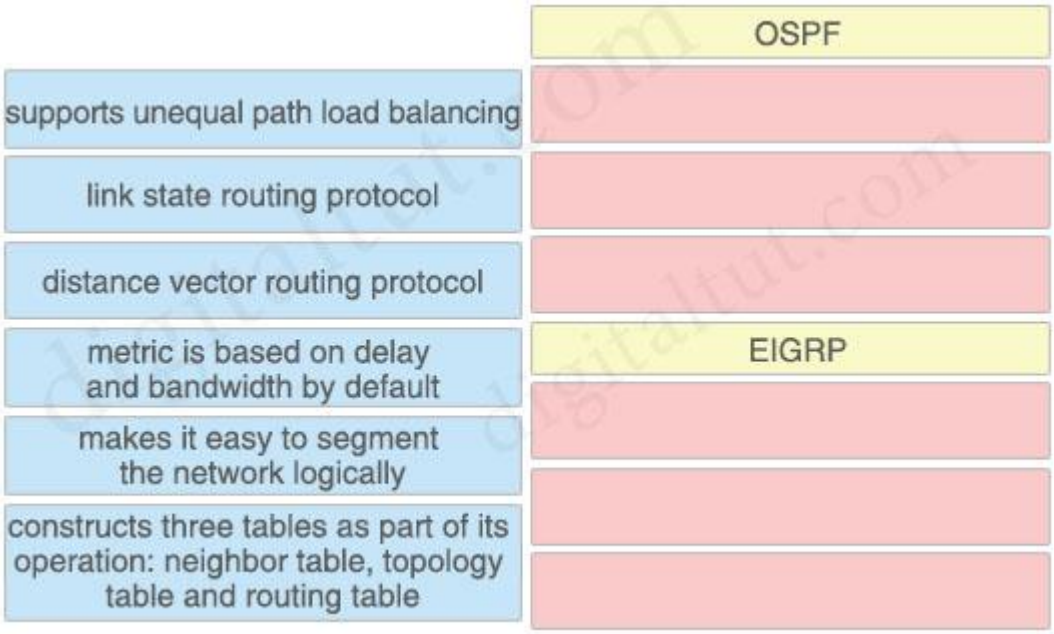
Answer: B E

Drag Drop Questions

https://www.digitaltut.com/drag-drop-questions

Question 1

Drag and drop the characteristics from the left onto the correct routing protocol types on the right.



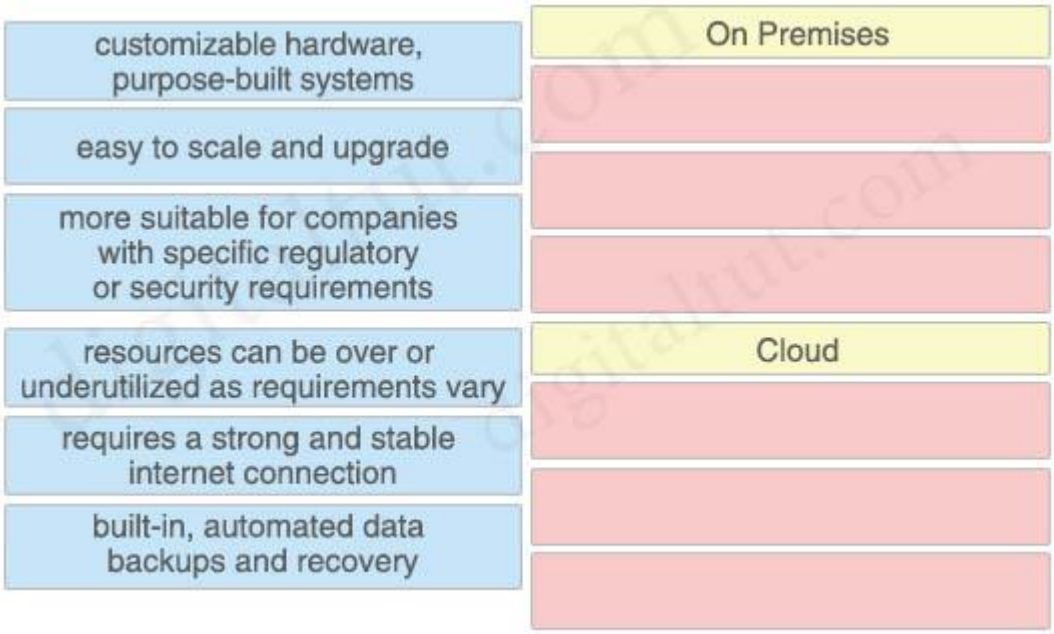
Answer:

OSPF:
+ link state routing protocol
+ makes it easy to segment the network logically
+ constructs three tables as part of its operation: neighbor table, topology table and routing table (?)

EIGRP:
+ supports unequal path load balancing
+ distance vector routing protocol
+ metric is based on delay and bandwidth by default

Question 2

Drag and drop the characteristics from the left onto the correct infrastructure deployment types on the right.



Answer:

On Premises:
+ resources can be over or underutilized as requirements vary
+ customizable hardware, purpose-built systems
+ more suitable for companies with specific regulatory or security requirements

Cloud:
+ easy to scale and upgrade
+ requires a strong and stable internet connection
+ built-in, automated data backups and recovery

Question 3

Drag and drop the description from the left onto the correct QoS components on the right.



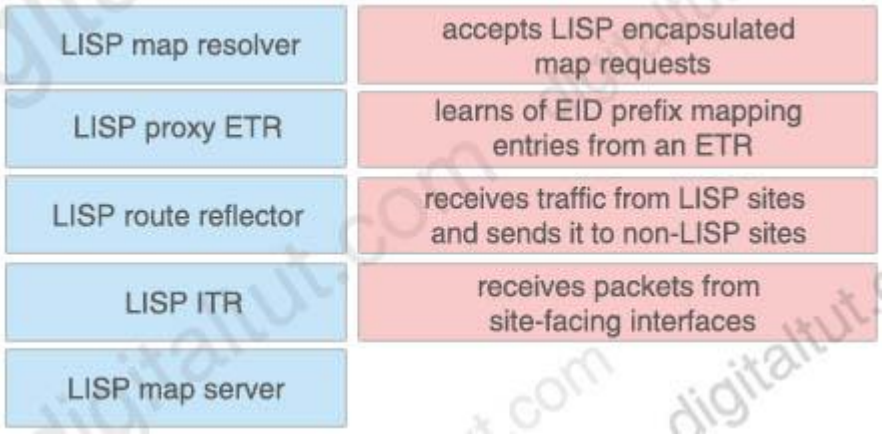
Answer:

Traffic Policing:
+ introduces no delay and jitter
+ drops excessive traffic
+ causes TCP retransmission when traffic is dropped

Traffic Shaping:
+ buffers excessive traffic
+ introduces delay and jitter
+ typically delays, rather than drops traffic

Question 4

Drag and drop the LISP components from the left onto the function they perform on the right. Not all options are used.

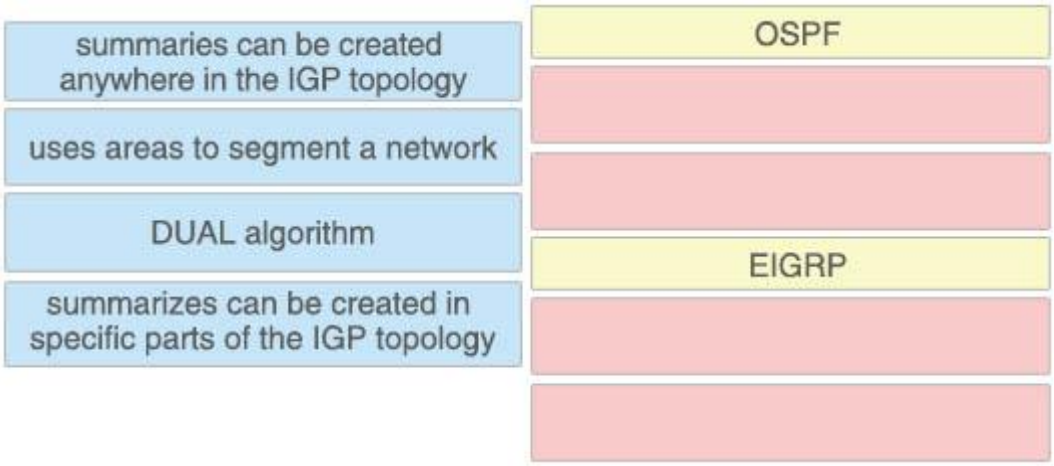


Answer:

+ accepts LISP encapsulated map requests: LISP map resolver
+ learns of EID prefix mapping entries from an ETR: LISP map server
+ receives traffic from LISP sites and sends it to non-LISP sites: LISP proxy ETR
+ receives packets from site-facing interfaces: LISP ITR

Question 5

Drag and Drop the descriptions from the left onto the routing protocol they describe on the right.



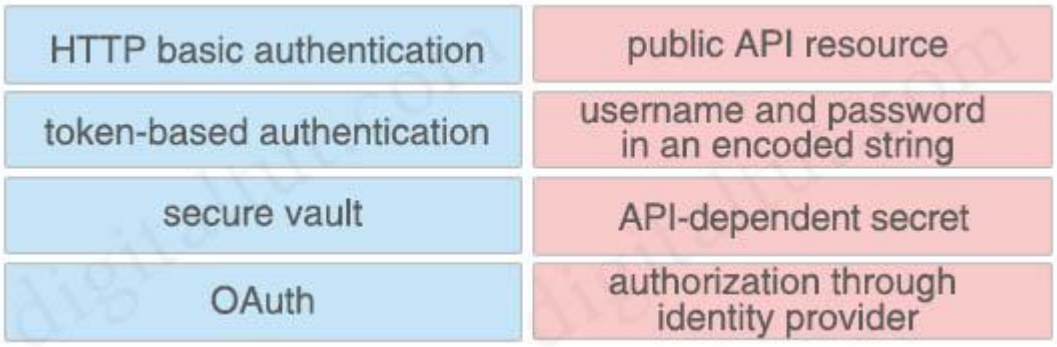
Answer:

OSPF:
+ uses areas to segment a network
+ summarizes can be created in specific parts of the IGP topology

EIGRP:
+ summaries can be created anywhere in the IGP topology
+ DUAL algorithm

Question 6

Drag and drop the REST API authentication method from the left to the description on the right.

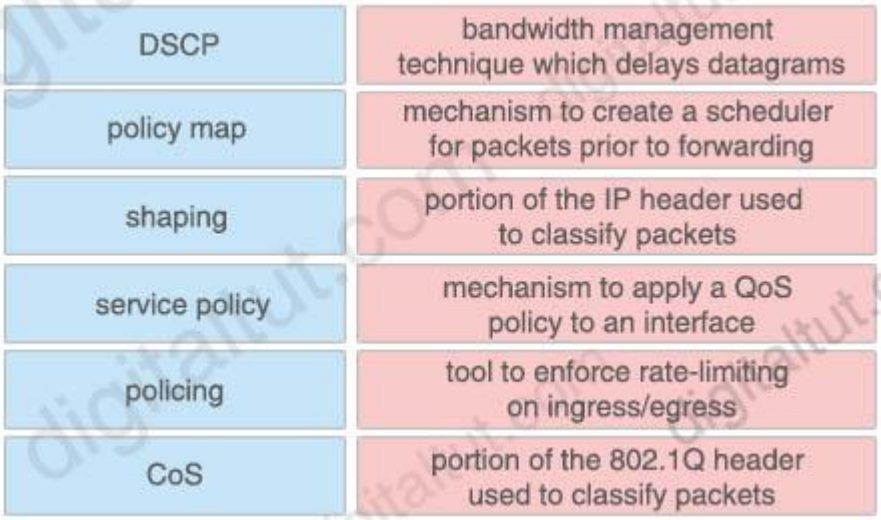


Answer:

+ public API resource: secure vault
+ username and password in an encoded string: HTTP basic authentication
+ API-dependent secret: OAuth
+ authorization through identity provider: token-based authentication

Question 7

Drag and drop the QoS mechanisms from the left to the correct descriptions on the right.

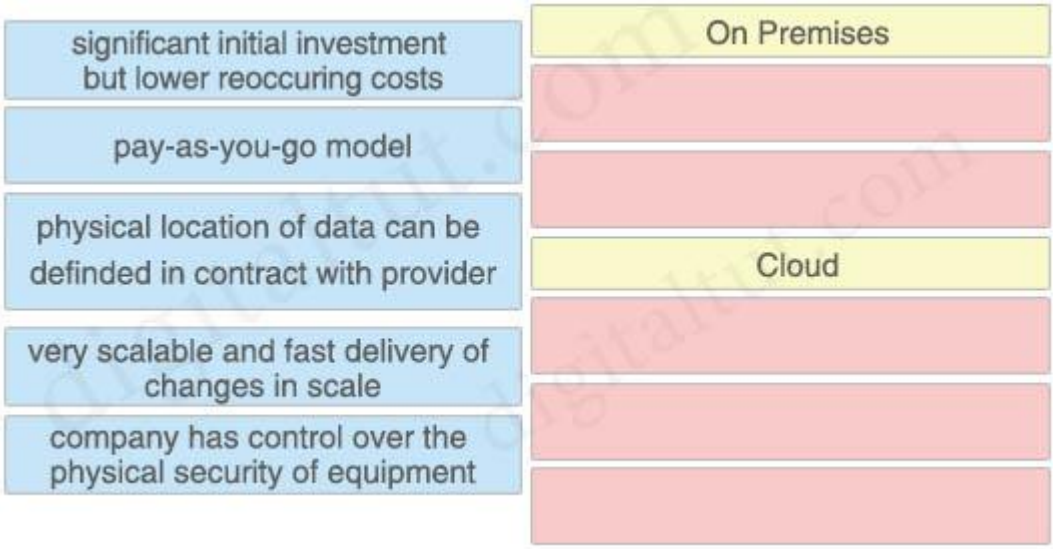


Answer:

+ bandwidth management technique which delays datagrams: shaping
+ mechanism to create a scheduler for packets prior to forwarding: policy map
+ portion of the IP header used to classify packets: DSCP
+ mechanism to apply a QoS policy to an interface: service policy
+ tool to enforce rate-limiting on ingress/egress: policing
+ portion of the 802.1Q header used to classify packets: CoS

Question 8

Drag and drop the characteristics from the left onto the correct infrastructure deployment types on the right.



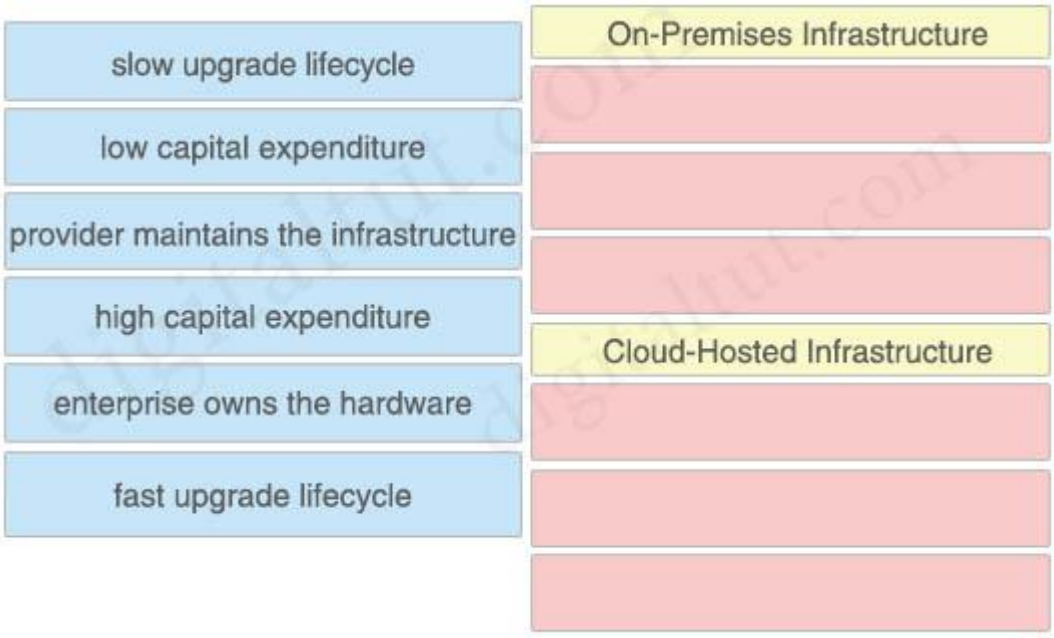
Answer:

On Premises:
+ significant initial investment but lower reoccuring costs
+ company has control over the physical security of equipment

Cloud:
+ pay-as-you-go model
+ very scalable and fast delivery of changes in scale
+ physical location of data can be definded in contract with provider

Question 9

Drag and drop the characteristics from the left onto the infrastructure types on the right.



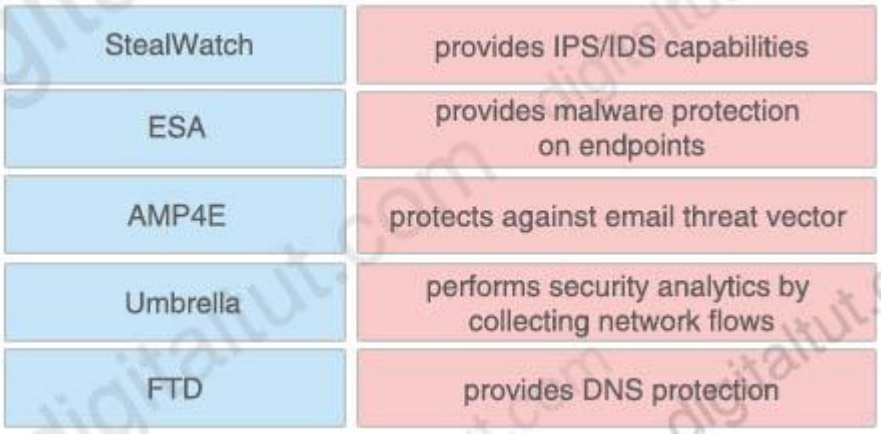
Answer:

On-Premises Infrastructure:
+ slow upgrade lifecycle
+ high capital expenditure
+ enterprise owns the hardware

Cloud-Hosted Infrastructure:
+ low capital expenditure
+ provider maintains the infrastructure
+ fast upgrade lifecycle

Question 10

Drag and drop the threat defense solutions from the left onto their descriptions on the right.



Answer:

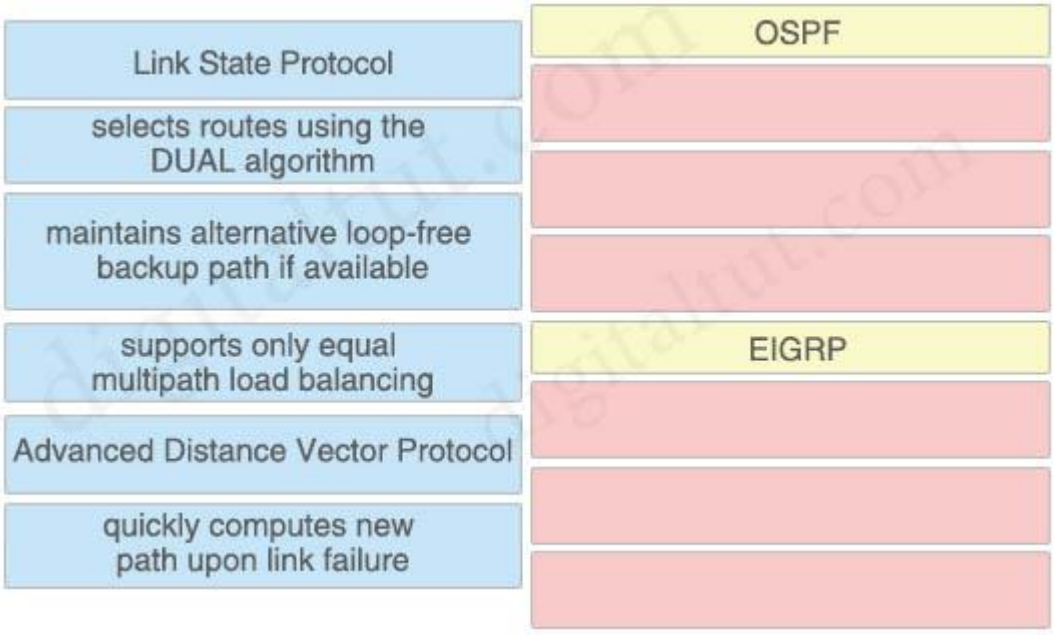
+ StealWatch: performs security analytics by collecting network flows
+ ESA: protects against email threat vector
+ AMP4E: provides malware protection on endpoints
+ Umbrella: provides DNS protection
+ FTD: provides IPS/IDS capabilities

Drag Drop Questions 2

https://www.digitaltut.com/drag-drop-questions-2

Question 1

Drag and drop the characteristics from the left onto the routing protocols they describe on the right.



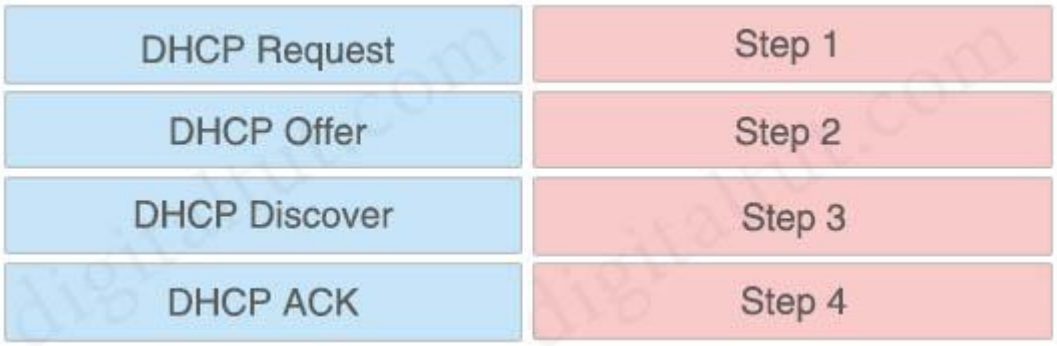
Answer:

OSPF
+ Link State Protocol
+ supports only equal multipath load balancing
+ quickly computes new path upon link failure

EIGRP
+ selects routes using the DUAL algorithm
+ maintains alternative loop-free backup path if available
+ Advanced Distance Vector Protocol

Question 2

Drag and drop the DHCP messages that are exchanged between a client and an AP into the order they are exchanged on the right.

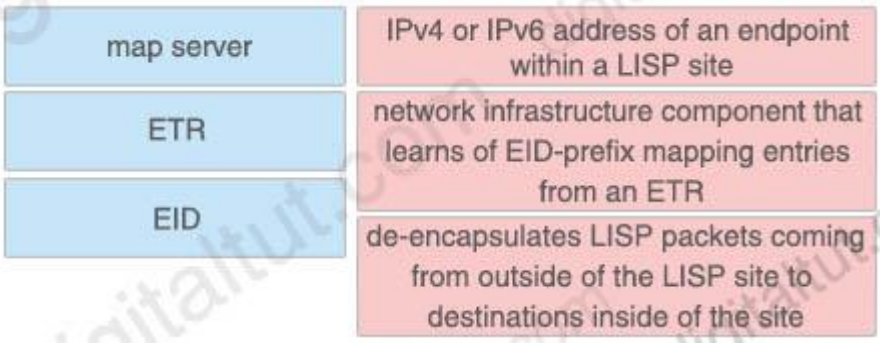


Answer:

+ Step 1: DHCP Discover
+ Step 2: DHCP Offer
+ Step 3: DHCP Request
+ Step 4: DHCP ACK

Question 3

Drag and drop the LIPS components on the left to the correct description on the right.



Answer:

+ IPv4 or IPv6 address of an endpoint within a LISP site: EID
+ network infrastructure component that learns of EID-prefix mapping entries from an ETR: map server
+ de-encapsulates LISP packets coming from outside of the LISP site to destinations inside of the site: ETR