

Huawei Certified Network Specialist

1. With the IPSec technology , which of the following description is true?

A. IPSec delivers service for transmission layer

B. ESP provides authentication service

C. ESP is more simple than AH

D. AH provides Data encryption

Answer(s): B

2. As shown in the figure, a CE requires access to the internet , and PE 1 is connected to the gateway.
Configurations on PE 1 are as follows:

PE 1:

#

nat address-group 0 175.31.1.3 175.31.1.10

#

ip vpn-instance vrf1

route-distinguisher 192.168.1.1:100

vpn-target 100:1 export-extcommunity

vpn-target 100:1 import-extcommunity

#

acl number 2000

rule 5 permit vpn-instance vrf1

#

#

interface Serial0/0/1:0

link-protocol ppp

ip binding vpn-instance vrf1

ip address 150.1.1.1 255.255.0.0

nat outbound acl 2000 address-group 0

#

interface Pos2/1/0

clock master

link-protocol ppp

ip address 175.31.1.1 255.255.0.0

#

bgp 100

group ibgp internal

peer ibgp connect-interface LoopBack0

peer 192.168.1.2 as-number 100

```
peer 192.168.1.2 group ibgp
```

```
#
```

```
ipv4-family unicast
```

```
undo synchronization
```

```
peer ibgp enable
```

```
peer 192.168.1.2 enable
```

```
peer 192.168.1.2 group ibgp
```

```
#
```

```
ipv4-family vpnv4
```

```
policy vpn-target
```

```
peer ibgp enable
```

```
peer 192.168.1.2 enable
```

```
peer 192.168.1.2 group ibgp
```

```
#
```

```
ipv4-family vpn-instance vrf1
```

```
default-route imported
```

```
import-route direct
```

```
import-route static
```

```
group nei_vrf1 external
```

```
peer nei_vrf1 as-number 65004
```

```
peer 150.1.1.2 as-number 65004
```

```
peer 150.1.1.2 group nei_vrf1
```

```
#  
ip route-static vpn-instance vrf1 0.0.0.0 0.0.0.0 175.31.1.2
```

PE 1:

#

nat address-group 0 175.31.1.3 175.31.1.10

#

ip vpn-instance vrf1

route-distinguisher 192.168.1.1:100

vpn-target 100:1 export-extcommunity

vpn-target 100:1 import-extcommunity

#

acl number 2000

rule 5 permit vpn-instance vrf1

#

#

interface Serial0/0/1:0

link-protocol ppp

ip binding vpn-instance vrf1

ip address 150.1.1.1 255.255.0.0

nat outbound acl 2000 address-group 0

#

interface Pos2/1/0

clock master

link-protocol ppp

ip address 175.31.1.1 255.255.0.0

#

bgp 100

group ibgp internal

peer ibgp connect-interface LoopBack0

peer 192.168.1.2 as-number 100

```
peer 192.168.1.2 group ibgp
```

```
#
```

```
ipv4-family unicast
```

```
undo synchronization
```

```
peer ibgp enable
```

```
peer 192.168.1.2 enable
```

```
peer 192.168.1.2 group ibgp
```

```
#
```

```
ipv4-family vpnv4
```

```
policy vpn-target
```

```
peer ibgp enable
```

```
peer 192.168.1.2 enable
```

```
peer 192.168.1.2 group ibgp
```

```
#
```

```
ipv4-family vpn-instance vrf1
```

```
default-route imported
```

```
import-route direct
```

```
import-route static
```

```
group nei_vrf1 external
```

```
peer nei_vrf1 as-number 65004
```

```
peer 150.1.1.2 as-number 65004
```

```
peer 150.1.1.2 group nei_vrf1
```

```
ip route-static vpn-instance vrf1 0.0.0.0 0.0.0.0 175.31.1.2
```

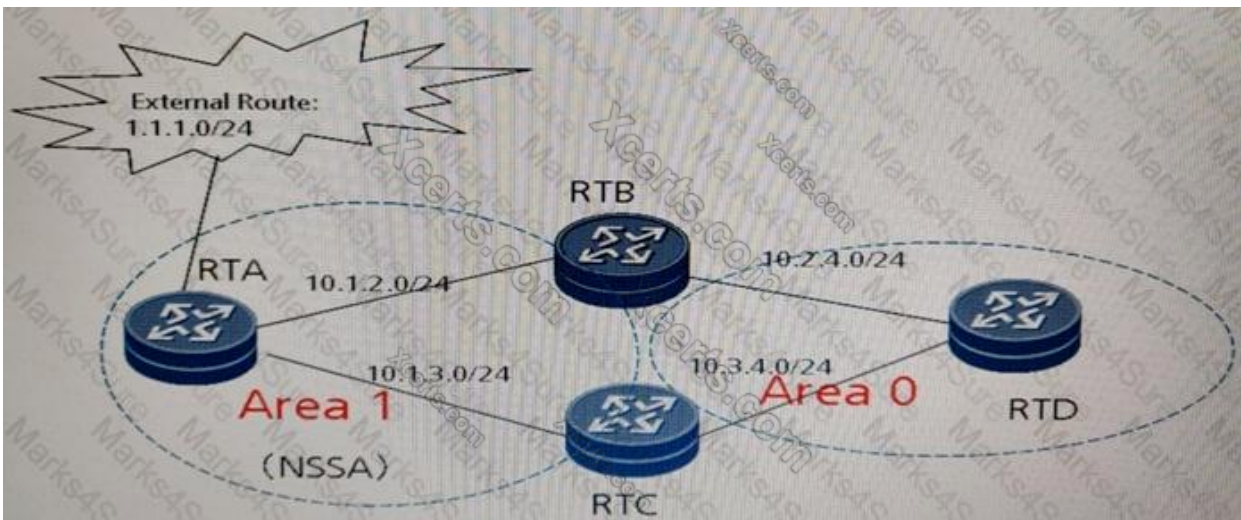
PE 1 is connected to the internet gateway through interface 175.311.2 CE and CE 2 cannot ping the interface.

Which of the following statements are true?

- A. NAT translation must be configured on interface pos2/1.0 instead of interface s0./01.0
- B. A private network route must be configured on the internet gateway.
- C. The public parameter of a static default route must be configured.
- D. A default must be configured on CE an CE 2.

Answer(s): B

3. Exhibit.



As shown in the figure, external route 1.1.1.0/24 is imported to RTA that is located in the NSSA area RTD is a backbone area router. RTB and RTC are both area border router (ABRs). OSPF configuration are as follows.

```

RTB:
#
ospf 1 router-id 2.2.2.2
area 0.0.0.0
network 10.2.4.0 0.0.0.255
network 2.2.2.2 0.0.0.0
area 0.0.0.1
network 10.1.2.0 0.0.0.255
nssa
#
return
RTC:
#
ospf 1 router-id 3.3.3.3
area 0.0.0.0
network 10.3.4.0 0.0.0.255
network 3.3.3.3 0.0.0.0
area 0.0.0.1
network 10.1.3.0 0.0.0.255
nssa
#
return

```

Which statement is true?

- A. RTD receive two external LSAs whose LS_ID is 1.1.1.0
- B. RTD receive an external LSAs whose LS_ID is 1.1.1.0 and advRouter is 2.2.2.2.
- C. RTD receive an external LSAs whose LS_ID is 1.1.1.0 and advRouter is 3.3.3.3.
- D. RTD receive an external LSAs whose LS_ID is 1.1.10/24 based on category 7 LSAs sent by RTA

Answer(s): D

4. Which statement about primary VPN tunnel binding is false?

- A. Only the data destined for the specific peer device is transmitted through the n=bound primary VPN tunnel Data to other devices is transmitted using the default tunnel policy.
- B. Primary tunnel ensures that data can be transmitted from a VPN t a specific peer device permanently through a dedicate TE tunnel.
- C. Primary VPN tunnel binding means to bind a tunnel to a specific VPN. The bound tunnel is exclusive to the VPN.
- D. The bound primary tunnel can be selected sequentially.

Answer(s): C

5. Which statement describes the packet loss ratio requirement of the voice service for the IP bearer network?

A. Allowed maximum packet loss =10⁻⁶

B. Allowed maximum packet loss =1%

C. No strict requirement

D. Allowed maximum packet loss =1%

Answer(s): A

6. If a (*, G) entry exists in the RP, Which of the following statements about the source registration are true in PIM_SSM?

A. The first hop DR connecting to the source encapsulate received multicast into PIM registration information and unicast the encapsulated information to the RP.

B. The RP sends an (S, G) join message hop by hop to the first hop DR connected to the multicast source to add the multicast source to the SPT.

C. The first-hop RD connecting to the source sends received multicast data to the RP hop by hop.

D. The RP encapsulates registration information and uses RTP to send data packet to be sent to the multicast group to the outbound interface.

E. The RP unicast a registration stop message to the first router connection to the multicast source.

Answer(s): E

7. Which of the following can be implemented in an IP backbone network?

A. RIP

B. BGP

C. ISIS

D. MPLS

Answer(s): B

8. The Huawei router is the hop RD where the SSM mapping function is enabled at the interface. Some IGMPv2 hosts expect to receive (1.0.01,232.1.0.1) (1.0.0.1232.1.0.2), and (2.0.0,232.1.3.2) data. How can you satisfy the preceding requirement with the least configurations?

A. ssm-mapping 232.1.3.2 16.2.0.0.1

B. ssm mapping 232.1.3.1.24.2.0.0.1

C. ssm-mapping 232. 1 308 2 00.1

D. ssm-mapping 232 1.0. 1 32. 1. 0. 0. 1

E. ssm-mapping 232. 1.0. 2. 32. 1. 0. 0. 1

F. ssm-mapping 232. 1. 0. 0. 24. 1. 0. 0. 1

Answer(s): C

9. Exhibit.



RTA is an edge router of the MPLS backbone network. It provides the access services for users under Layer 2 switches and different users by subinterface. User A access VLAN12 and has subscribed to the His, VoIP, and IPTV services. According to 8021p priorities, the value indicates the His service, 1 indicates the VoIP service, and 4 indicates the IPTV service. RTA is configured on the access side as follows.

```
[Quidway-GigabitEthernet2/1/8-1] vlan-type dot1q 1
[Quidway-GigabitEthernet2/1/8-1] trust upstream default
[Quidway-GigabitEthernet2/1/8-1] trust 8021p
[Quidway-GigabitEthernet2/1/8-1] user-queue cir 10000 pir 10000 flow-queue fq inbound
The default field is configured as follows:
[Quidway-dsdomain-default]8021p-inbound 0 phb af1 green
[Quidway-dsdomain-default]8021p-inbound 1 phb af2 green
[Quidway-dsdomain-default]8021p-inbound 4 phb be green
The flow-queue is configured as follows:
[Quidway-dsdomain-default]8021p-inbound 0 phb af1 green
[Quidway-dsdomain-default]8021p-inbound 1 phb af2 green
[Quidway-dsdomain-default]8021p-inbound 4 phb be green
The flow-queue is configured as follows:
[Quidway-flow-queue-template-fq] queue be pq
[Quidway-flow-queue-template-fq] queue af1 pq
[Quidway-flow-queue-template-fq] queue af2 wfq weight 15
```

What is the descending order of service priorities?

A. VoIP, IPTV, HSI

B. HSI, VoIP, IPTV

C. IPTV, VoIP, HSI

D. HSI, IPTV, VoIP

Answer(s): D

10. Which statement about the Hub s MPLS VPN networking is false?

A. The Hub PE can receive the VPN_IPv4 routes advertised by all Spoke PEs.

B. When an MP-IBGP neighbor relationship is established between two spoke PEs, the value of the Import VPN Target attribute of one Spoke PE can be the same as tat of the Export VPN Target attribute of the other Spoke PE.

C. The Hub PE advertises the routes learned from one Spoke PE to other Spoke PEs. Therefore, Spoke sites can access other through the Hub site.

D. All Spoke PEs can receive the VPN-IPv4 routes advertised by the Hub PE.

Answer(s): B

11. RTA is a leaf router that directly connects to host A through interface GigabitEthernet 1/0/0. The interface is configured as follows:

```
interface GigabitEthernet1/0/0
  undo shutdown
  ip address 192.168.4.2 255.255.255.0
  pim sm
  igmp enable
  igmp version 3
  igmp ssm-mapping enable
  igmp static-group 232.1.1.1
  Configurations in the IGMP view are as follows.
  igmp
    ssm-mapping 232.1.1.0 255.255.255.0 10.10.1.1
    ssm-mapping 232.1.2.0 255.255.255.0 10.10.1.1
```

Host A sends a IGMPv2 Report message to group 232.1.2.3. Which entry can be displayed by the displayed by the igmp ssm-mapping group command?

A. (10.10.1.1, 232.1.2.2)

B. (10.10.1.1, 232.1.1.) and (10.10.1., 2321.2.3)

C. (10.10.1.1, 232.1.1.1)

Answer(s): A

12. An interface sends 300 Mbit/s user BE traffic. The downstream HQoS scheduling is configured at this interface as follows

SQ: cir 15 Mbit/s pw 200 Mbit/s

FQ. queue be lpq shaping 10

CQ: port-queue be lpq shaping shaping-percentage 10 outbound, port shaping 100

How much traffic is at the downstream outbound interface after HQoS scheduling?

A. 20 Mbit/s

B. 10 Mbit/s

C. 200 Mbit/s

D. 100 Mbit/s

Answer(s): D

13. On the OSPF network, which of the following statements about the authentication function of the OSPF protocol are true?

A. The OSPF protocol supports area authentication and interface authentication.

B. The interface authentication mode must be consistent with the area authentication mode . For Example, interface and area are authentication in simple or MDS mode or are not authenticated.

C. The interface authentication mode can be different from the area authentication mode.

D. The authentication function of the OSPF is implemented by parameter settings in hello packets.

Answer(s): D

14. Exhibit.

```
#
interface Ethernet6/1/1
 ip address 40.1.1.4 255.255.255.0
 igmp prompt-leave
 igmp enable
 pim sm
#
IGMP interface group report information of VRF instance: public net
Ethernet6/1/1(40.1.1.4):
Total 1 IGMP Group reported
Group: 224.1.2.3
Uptime: 00:00:32
Expires: 00:04:38
Last reporter: 30.1.1.20
Last-member-query-counter: 0
Last-member-query-timer-expiry: off
Version1-host-present-timer-expiry: off
```

The preceding information shows the configurations of Ethernet 6/1/1 and ensure created based on received IGMPv2 Report messages. Which action does Ethernet 6/1/1 after receiving Leave messages for group 224.1.2.3?

A. Deletes the record of group 224.1.2.3

B. Sends group-specific query messages for group 224.1.2.4

Answer(s): A

15. With the NAT technology, which of the following elements can be translated?

A. Destination port number

B. Source port number

C. Source IP

D. Session table

E. Destination IP

Answer(s): A

16. Which of the following statements about the merits of the HoVPN networking are true?

A. If the UPE and SPE are separated by an IP/MPLS network, they can be connected through a generic routing encapsulation (GRE) or LSP tunnel. A hierarchical MPLS VPN provides good scalability.

B. The SPE and UPE exchange routes and advertise labels through MP-BGP. Each UPE runs only one BGP peer, reducing system overheads and simplifying configuration.

C. The BGP/MPLS VPN can be deployed layer by layer. When the performance of a superstratum provider edge (SPE) is insufficient, a user-end provider edge (UPE) can be added and the SPE moved to a lower layer. When the access capability of a UPE is insufficient, an SPE can be added.

D. Packets are forwarded between a UPE and an SPE after being labeled. The UPE and SPE are connected through an interface (or a subinterface), helping reduce the usage of limited interface resources.

E. Only local VPN routes need to be maintained on a UPE and remote routes on the SPE are represented by a default route or an aggregate route, reducing the load of the SP.

Answer(s): E

17. User A wants to obtain a better network service for business development and signs an SLA with a carrier. User A purchases a bandwidth of 5 Mbit/s to ensure the voice service (requiring short delay), video service, key data services, and other services. If you were a network administrator, what would you do on the PE to ensure these services?

A. Mark the VoIP service as EF, set the CIR to 0 Mbit/s, and set the PIR to 1 Mbit/s. Mark the video service as AF4 and set the CIR and PIR to 2 Mbit/s. Mark key data services as AF3, set the CIR to 1 Mbit/s and the PIR to 5 Mbit/s. Mark other services as AF1, set the CIR to 2 Mbit/s and set PIR to 5 Mbit/s.

B. Mark the VoIP service as EF, set the CIR to 0 Mbit/s, and set the PIR to 1 Mbit/s. Mark the video service as AF4 and set the CIR and PIR to 2 Mbit/s. Mark key data services as AF3, set the CIR to 1 Mbit/s and the PIR to 5 Mbit/s. Mark other services as AF1, set the CIR to 2 Mbit/s and set PIR to 5 Mbit/s.

C. Mark the VoIP service as EF, set the CIR to 1 Mbit/s, and set the PIR to 1 Mbit/s. Mark the video service as AF4 and set the CIR and PIR to 2 Mbit/s. Mark key data services as AF3, set the CIR to 2 Mbit/s and the PIR to 5 Mbit/s. Mark other services as BE, set the CIR to 0 Mbit/s and set PIR to 5 Mbit/s.

D. Mark the VoIP service as EF, set the CIR to 2 Mbit/s. Mark the video service as AF3 and set the CIR and PIR to 2 Mbit/s. Mark key data services as AF4, set the CIR to 2 Mbit/s and the PIR to 5 Mbit/s. Mark other services as BE, set the CIR to 0 Mbit/s and set PIR to 5 Mbit/s.

Answer(s): C

18. Exhibit.

```
#
pim
c-rp Ethernet6/2/0
timer hello 100
state-refresh-interval 10
state-refresh-ttl 60
#
#
interface Ethernet6/2/0
ip address 20.1.1.3 255.255.255.0
Pim timer hello 45
Pim dm
#
```

Which of the following statements are false?

A. Ethernet 6/2/0 sends a PIM hello message every 100 seconds.

B. The TTL value is 60 in state-refresh messages sent by the router

C. If the PIM-DM is enabled at Ethernet 6/2/0 on a router, the PIM-SM cannot be enabled at other interfaces on the router.

D. Ethernet 6/2/0 sends a state-refresh messages every 10 seconds

Answer(s): C

19. An Ethernet cable connects RTA to RTB through Ethernet 0/0.the OSPF neighbor relationship can be established without enabling the OSPF authentication functionis enabled, Which of the following statements about the OSPF relationship between RTA and RTB are true?

```

[RTA] ospf 1
[[RTA-ospf-1] area 0.0.0.0
[RTA-ospf-1-area-0.0.0.0] network 10.1.1.0 0.0.0.3
[RTA-ospf-1-area-0.0.0.0] authentication-mode simple plain huawei
[RTA] interface Ethernet0/0
[RTA-Ethernet0/0] ip address 10.1.1.1 255.255.255.252
[RTA-Ethernet0/0] ospf authentication-mode md5 1 cipher NCG55QK<'>/Q='Q'MAF4<1!!

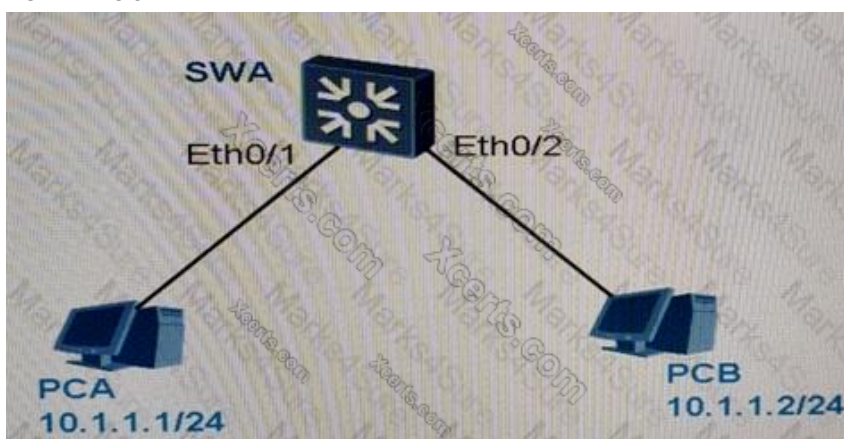
[RTB] ospf 1
[[RTB-ospf-1] area 0.0.0.0
[RTB-ospf-1-area-0.0.0.0] network 10.1.1.0 0.0.0.3
[RTB-ospf-1-area-0.0.0.0] authentication-mode simple plain Nokia
[RTB] interface Ethernet0/0
[RTB-Ethernet0/0] ip address 10.1.1.2 255.255.255.252
[RTB-Ethernet0/0] ospf authentication-mode md5 1 cipher N'G55QK<'>=/Q='Q'MAF4<1!!

```

- A. Simple authentication is used between RTA and RTB
- B. The OSPF neighbor relationship cannot be established between RTA and RTB due to failure of area authentication
- C. The OSPF neighbor relationship can be established between RTA and RTB
- D. MD5 authentication is used between RTA and RTB

Answer(s): A

20. Exhibit.



As shown in the figure, Super VLAN is enabled on SWA (a LAN switch). The Super VLAN configuration is as

follows:

```
[SWA]vlan 10
[SWA-vlan10]port Ethernet 0/1
[SWA-vlan10]vlan 20
[SWA-vlan20]port Ethernet 0/2
[SWA-vlan30]vlan 100
[SWA-vlan100]supervlan
[SWA-vlan100]subvlan 10 20
[SWA-vlan100]q
[SWA]interface Vlan-interface 100
[SWA-Vlan-interface 100]ip address 10.1.1.4 255.255.255.0
[SWA-Vlan-interface 100]arp proxy enable
```

Suppose ARP entries on the switch and the PC are empty. Enable the debugging function of the switch to check ARP packets. Ping PCB on PCA, and part of the debugging information output by the switch is as follows:

1. SWA ARP/8/arp_rcv: Receive an ARP Packet, operation: 2, sender_eth_addr: 0014-2245-bdaf, sender_ip_addr: 10.1.1.2, target_eth_addr: 00e0-fc26-33fc, target_ip_addr: 10.1.1.4
2. SWA ARP/8/arp_send: Send an ARP Packet, operation: 1, sender_eth_addr: 00e0-fc26-33fc, sender_ip_addr: 10.1.1.4, target_eth_addr: 0000-0000-0000, target_ip_addr: 10.1.1.2
3. SWA ARP/8/arp_rcv: Receive an ARP Packet, operation: 1, sender_eth_addr: 0014-2233-261a, sender_ip_addr: 10.1.1.1, target_eth_addr: 0000-0000-0000, target_ip_addr: 10.1.1.2
4. SWA ARP/8/arp_send: Send an ARP Packet, operation: 2, sender_eth_addr: 00e0-fc26-33fc, sender_ip_addr: 10.1.1.2, target_eth_addr: 0014-2233-261a, target_ip_addr: 10.1.1.1

Which of the following specifies the time order in which the preceding debugging information is generated?

A. 3--4--1--2

B. 1--2--3--4

C. 1--4--2--3

D. 3--2--1--4

Answer(s): A
