Hcia-datacom-mock-exam-10-pdf

Information (Universitas Pelita Bangsa)

True or Fales

1. Frames transmitted on the trunk link between switches are all tagged.

   Fales

2. Static routes and OSPF routes can form equal-cost routes.

   False

3. Segment routing (SR) can be deployed with or without controllers.

   True

4. In the WLAN network architecture, ACs can be connected in in-path or off-path mode.

   True

5. A hybrid port on a switch can connect to either a user host or a port on another switch.

   True

6. Before sending an IPv6 packet, an interface performs the following operations in this order: address configuration, address resolution, and duplicate address detection (DAD).

   False

7. Network design and planning is the first phase of campus network construction.

   True

8. Specific routes can be summarized into a summary route only when they have the same next-hop address.

   True

9. In an OSPF AS, a router can function as both an ABR and an ASBR.

   True

10. During IP packet forwarding, the last-hop router forwards packets using the direct route.

    True

11. WLAN technology enables transmission of information by radio waves over the air. Currently, the 2.6 GHz and 5 GHz frequency bands are used.

    False

12. Segment routing (SR) provides an innovative traffic steering method. It divides a network path into segments and allocates segment IDs (SIDs) to these segments. The segments and nodes are sequentially arranged into a segment list to form a forwarding path.

    True

13. Python can run in both interactive mode and non-interactive (script) mode.

    True

14. When two static routes work as the primary and backup routes, the preference of the backup route can be changed to the same as that of the primary route so that the two routes become equal-cost routes.

    True

15. As every two nodes in a full-mesh network are connected using cables, each node requires a large number of physical ports and connection cables, resulting in relatively high costs.

    True

16. Software-defined networking (SDN) is a new type of network architecture originally proposed by the Clean State research team at Stanford University. SDN has three characteristics: forwarding-control separation, centralized control, and open programmable interfaces.

    True

17. FTP is a file transfer protocol and works in active or passive mode.

    True

18. The PVID of a trunk port on a switch may not be the ID of a VLAN that is allowed for the port.

    True

19. AAA is a short for authentication, authorization, and application.

    False

20. TFTP uses TCP to transfer files, and the default server port number is 21.

    False

Multiple choice single answer

1. What is the valid VLAN ID range?

   Answer: 1 to 4094.

2. As shown in the following networking, the interfaces connecting R1, R2, R3, and R4 are running OSPF, and are all area 0. On R1, a static route to the network segment 10.1.34.0/24 is configured using the ip route-static 10.1.34.0.24 10.1.13.32 command. Which of the following statement is true?

   Answer: The routing table of R1 contains only the OSPF route to the network segment 10.1.34.0/24, and the next hop of the route is 10.1.13.32.

3. Which of the following port numbers is used by the Telnet protocol?

   Answer: 23.

4. The establishment of an OSPF adjacency between devices involves four steps. Which of the following statements about these steps is true?

   Answer: The devices establish bidirectional neighbor relationships, negotiate the master/slave relationship, exchange LSAs, update LSAs, and synchronize their LSDBs.

5. How many bytes does an MPLS label contain?

   Answer: 4 bytes.

6. In which of the following modes are DHCP Discover messages sent?

   Answer: Broadcast.

7. OSPF has multiple types of protocol packets. These packets play different roles in the interaction between OSPF routers. Which of the following packets describes summary information about the local LSDB and is used to synchronized the LSDBs of two routers?

   Answer: DD packet.

8. OSPF authentication enables a device to encrypt OSPF packets by adding an authentication field to the packets, ensuring network security. Which of the following statements about OSPF authentication is false?

   Answer: The authentication modes of two OSPF neighbors must be the same, that is, both of them either use interface authentication or use area authentication.

9. Which of the following is not a method for an AP to discover an AC address?

   Answer: OSPF.

10. Which of the following statements is false about Control and Provisioning of Wireless Access Points (CAPWAP)?

    Answer: CAPWAP is an application layer protocol based on TCP.

11. In the same Ethernet network segment, five routers are running OSPF for interconnection. When the protocol status of all routers is stable, which of the following statements is true?

    Answer: The neighbor status of a router on the network can only be Full or 2-way.

12. In STP, which of the following values cannot be set as the bridge priority?

    Answer: 22528.

13. IPv6 addresses can be classified into three types based on IPv6 address prefixes. Which of the following is not an IPv6 address type?

    Answer: Broadcast address.

14. NTP is a network protocol used to synchronize computer clocks with an NTP server. Which of the following statements about NTP is False?

    Answer: NTP is a network layer protocol in the TCP/IP protocol suite.

15. Refer to the following configuration on a switch:

    [huawei]vlan batch 2 to 9 10

    Which of the following statements is true about this command?

    Answer: VLANs 2 to 10 will be created on the switch.

16. Which of the following lists the correct protocol layers of the TCP/IP reference model from bottom to top?

    Answer: Physical layer, data link layer, network layer, transport layer, and application layer.

17. Dynamic routing protocols can be classified into Interior Gateway Protocol (IGP) and Exterior Gateway Protocol (EGP) according to their working area. Which of the following protocols is an EGP?

    Answer: BGP

18. The MAC address table of a switch is as follows:

    00-01-02-03-04-AA G0/0/1

    00-01-02-03-04-CC G0/0/3

    A data frame with the destination MAC address 00-01-02-03-04-BB is received on on G0/0/3. How does the switch process the two data frames?

    Answer: Floods the first frame and discards the second frame.

19. In the TCP/IP reference model, network layer protocols are responsible for sending packets from the source host to the destination host. Which of the following protocols is not a network layer protocol?

    Answer: PPP

20. Network Address Translation (NAT) translates the IP address in an IP packet header into another IP address. Which of the following is not an advantage of NAT?

    Answer: Implementing accurate identification and control of packet flows on networks to control network access behavior, prevent network attacks, and improve network bandwidth efficiency.

21. Which of the following statements about STP and RSTP is false?

    Answer: There are three RSTP port states: Forwarding, Learning, and Blocking.

22. The Network Configuration Protocol (NETCONF) provides a mechanism for managing network devices. Which of the following statements about NETCONF is false?

    Answer: NETCONF messages are formatted using either JSON or XML.

23. An AC manages and controls APs in a centralized manner through CAPWAP tunnels. An AP sends a Discovery Request packet to find an available AC. Which of the following method cannot be used by AP to discover AC?

    Answer: Multicast

24. Refer to the following AAA configuration on a device. Which of the following statements is true?

    [R1-aaa] display this

    [V200R003C00]

    #

    aaa

    authentication-scheme default

    authorization-scheme default

    accounting-scheme default

    domain default

    domain default_admin

    local-user Huawei password cipher

    %$%$m]GrHmJ1mL[7&zCh^XQBUII]%$%$

    Local-user Huawei privilege level 0

    Local-user Huawei service-type telnet

    #

    Answer: The authentication mode is local authentication.

25. Python can be used to implement automatic network deployment, operation, and maintenance, reducing the dependence on human resources. This resolves the problems with traditional network O&M. Which of the following statements about Python is false?

    Answer: Two forward slashes (//) can be used to mark a single-line comment.

26. The following shows partial OSPF neighbor information for a specific router:

    OSPF Process 1 with Router ID 10.1.1.3

      Neighbors

    Area 0.0.0.0 interface 10.1.1.3 (GigabitEthernet0/0/0/0)'s

    neighbors

      Router ID: 10.1.1.1   Address: 10.1.1.1

       State: Full   Mode:Nbr   is   Slave   Priority: 1

       DR: 10.1.1.5   BDR: 10.1.1.1   MTU: 0

       Dead timer due in 35 sec

       Retrans timer interval: 5

       Neighbor is up for 00:02:01

       Authentication Sequence: [0]

    Which of the following statement is false?

    Answer: The router is the slave in the master-slave relationship.

27. Which of the following states that the neighbor relationship is stable between OSPF-enabled DR-other routers on a broadcast network?

    Answer: Two-way

28. Which of the following statements is true about APs in WLAN networking?

    Answer: Typically, APs use PoE power to facilitate deployment.

29. A WLAN is constructed using wireless technologies. Which of the following statements about the WLAN networking is false?

    Answer: A virtual access point (VAP) is a service entity virtualized on an AP. All VAPs virtualized on the same AP has the same BSSID.

30. Which of the following statements about BPDUs in STP is false?

    Answer: When the network topology becomes stable, all switches proactively send configuration BPDUs.

31. Which of the following is not a valid port role in RSTP?

    Answer: Forwarding port

32. Which of the following commands can be used to check OSPF LSDB information on a Huawei device?

    Answer: display ospf Isdb

33. Refer to the following ACL configuration on a device.

    Which of the following statements is true?

    #

    Time-range satime 08:00 to 17:30 working-day

    #

    acl number 3002

      rule 5 permit ip source 10.164.2.0 0.0.0.255

    destination 10.164.9.9 0.0.0.255 time-range satime

    Answer: The ACL rule takes effect only on working days.

34. Which of the following packet types is used by OSPF to maintain neighbor relationships?

    Answer: Hello

35. The Versatile Routing Platform (VRP) uses the file system to manage files directories on a device. Which of the following commands can be used to check the current directory of a device?

    Answer: pwd

36. SNMP is used to manage network devices. Refer to the following SNMP configuration on a Huawei device. Which of the following statements is false?

[~HUAWEI] display current-configuration | include snmp

snmp-agent

snmp-agent local-engineid 800007DB03001974593301

snmp-agent sys-info version v3

snmp-agent mib-view included iso-view iso

snmp-agent group v3 v3group privacy read-view iso-view write-view iso-view notify-view iso-view

snmp-agent usm-user v3 v3user

snmp-agent usm-user v3 v3user group v3group

snmp-agent usm-user v3 v3user authentication-mode sha cipher

%^%#&Ygn:NzQw;d>f=2+aJ;;=B\IM^"P1Hf/{L$F9UW@%^%#

Snmp-agent usm-user v3 v3user privacy-mode aes256 cipher

%^%#Gc!*FAB;vL5_[a#9q9i7:*lj;q#<P8MOf8@PJMJ0%^%#

Answer: The encryption mode of the v3user user is SHA

37. Which is the most widely used VLAN assignment method?

Answer: Interface-based VLAN assignment

38. The Point-to-Point Protocol (PPP) is a common data link layer protocol for wide area networks (WANs). Which of the following statements about PPP is false?

Answer: The establishment of a PPP link goes through three phases: link layer negotiation, network layer negotiation, and authentication.

39. The Domain Name System (DNS) protocol is used to resolve domain names to IP addresses. Which of the following statements about DNS is false?

Answer: DNS supports traversal query

40. Refers to the following configuration on a Huawei router.

<huawei>system-view

[huawei]user-interface maximum-vty 7

Which of the following statements is true?

Answer: The router allows a maximum of seven users to log in concurrently through Telnet

41. If the PVID of a trunk port on a switch is 10 and the port trunk allow-pass vlan 7 9 command is configured on the port, which of the following statements is true?

    Answer: Data frames of VLANs 1,7, and 9 can be transmitted on a trunk link.

42. An IPv6 address is 128 bits long. Typically, an IPv6 address is represented by eight groups of 16-bit hexadecimal values separated by colons (:). Which of the following statements about IPv6 addresses is false?

    Answer: Each IPv6 interface must have a unique local address (ULA).

43. The process for an AP to go online is as follows: The AP sends a Join Request packet to an AC, which then authenticates the AP after receiving the packet. The AP gets managed after being successfully authenticated. Which of the following AP authentication method is not supported by an AC?

    Answer: Password authentication

44. OSPF is configured on RTA, RTB, and RTC. GigabitEthernet 0/0/0 interfaces of these routers belong to area 0 and the network types of these interfaces are broadcast. The router ID of RTA is 1.1.1.1, and the DR priority of GigabitEthernet 0/0/0 on RTA is set to 0. The router ID of RTB is 2.2.2.2, and the DR priority of GigabitEthernet 0/0/0 on RTB is set to 225. The router ID of RTC is 3.3.3.3, and the DR priority of GigabitEthernet 0/0/0 on RTC is the default value.

    Which of the following statements is true about the DR and BDR on the network?

    Answer: RTB functions as the DR, and RTC as the BDR.

45. The ping and tracert commands are used to check the network status. Which of the following statements about the ping and tracert commands is false?

    Answer: The ping -s source-ip-address destination-ip-address command is used to specify the source and destination IP addresses of ICMP Echo Request packets

46. What is the network ID for the IP address 192.168.1.1/29

    Answer: 192.168.1.4

47. A router has the following four specific routes:

    ip route-static 10.1.20.0 24 12.1.1.2

    ip route-static 10.1.21.0 24 12.1.1.2

    ip route-static 10.1.22.0 24 12.1.1.2

    ip route-static 10.1.23.0 24 12.1.1.2

    To summarize these specific routes, which of the following commands should be run?

    Answer: ip route-static 10.1.22.0 24 12.1.1.2

48. The following shows the routing table of a specific router:

Destination/Mask	Proto	Pre	Cost	Flags	NextHop	Interface
172.16.1.0/24	OSPF	10	200	D	192.168.1.2	GigabitEthernet0/0/0
172.16.0.0/16	Static	5	0	RD	192.168.1.2	GigabitEthernet0/0/0
172.16.1.0/22	Static	80	0	RD	192.168.1.2	GigabitEthernet0/0/0

When data needs to be sent to the destination 172.16.1.1 through this router, which of the following routes is used?

Answer: OSPF route 172.16.1.0/24 with a preference of 10 and cost of 200

Multiple Choice multiple answer

1. Which of the following statements about IP addresses and MAC addresses are true?

   Answer:

   IP addresses are assigned based on the network topology.

   MAC addresses are unchangeable.

   MAC addresses are assigned based on vendors

2. Which of the following statements about Layer 2 hybrid ports are true?

   Answer:

   After receiving a tagged frame on a link, a Layer 2 hybrid port checks whether the VID in the tag of the frame is in the tagged or untagged VLAN ID list. If not, the port discards the frame.

   When a tagged frame needs to be sent from a Layer 2 hybrid port of a switch and the VID in the tag of the frame is in the untagged VLAN ID list, the port removes the tag from the frame and then sends the untagged frame out on the link.

   When a tagged frame needs to be sent from a Layer 2 hybrid port of a switch and the VID in the tag of the frame is in the tagged VLAN ID list, the port sends the frame out on the link without removing the tag from the frame.

3. ACLs are used to match and distinguish packets. Which of the following information can be used to define ACL rules?

   Answer:

   ABCD

4. Network Address Translation (NAT) translates the IP address in an IP packet header into another IP address. Which of the following methods can implement NAT?

   Answer:

   ABCD

5. Which of the following parameters can be specified when an administrator configures an advanced ACL?

   Answer:

   Source and destination IP addresses

   Source and destination MAC address

   ICMP protocol type

6. Which of the following statements about collision domains and broadcast domains are true?

   Answer:

   ABCD

7. Which of the following statements about OSPF areas are true?

   Answer:

   ABCD

8. Which of the following are IPv6 address types?

   Answer:

   Anycast address

   Unicast address

   Multicast address

9. Which of the following statements about Layer 2 and Layer 3 loops are true?

   Answer:

   The Layer 2 frame header does not contain any information that can prevent data frames from being forwarded endlessly.

   If redundant links are deployed on the network, Layer 2 loops may occur.

   A Layer 2 loop may occur if cables are incorrectly connected.

10. Which of the following are the advantages of a VLAN?

    ABCD

11. Which of the following statements are false about the forwarding behavior of access ports on a switch?

    Answer:

    When an access port of the switch sends an untagged data frame, the port adds its default VLAN ID to the frame.

    When an access port of the switch receives a data frame carrying the same tag as the default VLAN ID of the port, the port discards the frame.

12. Which of the following statements about static and dynamic routes are true?

   Answer:

   Dynamic routing protocols can automatically discover and generate routes and are more suitable for large-scale networks

   Static routes have low requirements on the system and are applicable to simple, stable, and small-sized networks.

   Dynamic routing protocols can be classified into distance-vector routing protocols and link-state routing protocols based on their working mechanism and routing algorithms.

13. The Domain Name System (DNS) protocol is used to resolve domain names to IP addresses. Which of the following elements constitute a complete domain name?

   Answer:

   ABCD

14. Which of the following IP addresses are private IP addresses?

   Answer:

   10.0.1.1/30

   172.16.1.1/30

   192.168.1.1/30

15. An IPv6 address is 128 bits long. For convenience, IPv6 addresses can be abbreviated. For the IPv6 address 2001:0B8:0000:0000:1234:FB00:0000:5000:45FF, which of the following comply with the IPv6 address abbreviation rules?

   Answer:

   2001:0DB8:0:1234:FB00:0:5000:45FF

   2001:DB8::1234:FB00:0:5000:45FF

   2001:DB8:0:1234:FB00::5000:45FF

16. As shown in the following networking, the interfaces connecting R1, R2, R3, R4, and R5 are running OSPF, and are all in area 0. The routing table of R1 has two equal-cost routes to the destination 10.1.35.0/24. In order for the forwarding path R1 -> R4 -> R3 to be preferentially selected, which of the following configuration should be performed?

   Answer:

   Run the ospf cost 10 command on GE0/0/1 of R1.

   Run the ospf cost 10 command on GE0/0/3 of R2.

17. The route preference is an indicator used by a router to compare routes of different routing protocols. Which of the following statements are true about the default preference of common routes?

    Answer:

    The default preference of an OSPF internal route is 10.

    The default preference of a static route is 60.

    The default preference of a direct route is 0.

18. A WLAN is a network that uses wireless signals such as radio waves, lasers, and infrared rays to replace the traditional media used for transmission on a wired LAN. Which of the following devices are commonly used on a WLAN?

    Answer:

    ABCD

19. Which of the following are valid MAC Address types?

    Answer:

    Multicast MAC address

    Broadcast MAC address

    Unicast MAC address

20. A router can advertise default routes in an OSPF area. Which of the following statements about OSPF default route advertisement are false?

    Answer:

    After learning the default route advertised by the router, other routers in the same OSPF area as the router will add this route to their routing tables.

    The preference of the advertised default route in the routing table is 10.

21. Which of the following are advantages of switch stacking and clustering?

    Answer:

    Improves network reliability

    Simplifies network management

    Simplifies network structure

22. The concept of Network Function Virtualization (NFV) was proposed by a group of network service providers to solve problem such as too much telecom network hardware, complex deployment and O&M, and difficult service innovation. Which of the following components are included in the standard NFV architecture?

    Answer:

    MANO

    NFVI

    VNF

23. In OSPF, which of the following network types require the election of a DR and BDR?

    Answer:

    BMA

    NBMA

24. A host at 192.168.1.1/24 on an intranet wants to access a server at 160.131.20.1 on a public network. Refer to the following configuration on a gateway router:

    [RTA]interface GigabitEthernet 0/0/0

    [RTA-GigabitEthernet0/0/0]nat outbound 2000

    Which of the following statements are true?

    Answer:

    The administrator configures Easy IP

    The address 192.168.1.1 will be translated into a public IP address in a public address pool

25. For the IPv6 address 2000:002A:0000:0000:0000:000A:020C:023D, which of the following comply with the IPv6 address abbreviation rules?

    Answer:

    2000:2A::A:20C:23D

    2000:2A:0:0:0:A:20C:23D

26. Refer to the following configuration:

    [huawei]interface eth-trunk 1

    [Huawei-Eth-Trunk1]undo portswitch

    Which of the following statements about the undo portswitch command are true?

    Answer:

    This command enables a router to support Layer 3 link aggregation.

    This command enables a Layer 3 switch to support Layer 3 link aggregation

27. Which of the following statements about OSPF router IDs are true?

    Answer:

    To ensure protocol stability, it is recommended that the network administrator manually configure a router ID for an OSPF process.

    A router ID can be manually configured or automatically selected by a device

    The router ID of every device in an OSPF area must be unique

28. When troubleshooting a spanning tree network fault, an administrator obtains the spanning tree status information of interface GE0/0/1 on a switch, shown as follows:

----[Port1(GigabitEthernet0/0/1)][FORWARDING]----

Port Protocol   :Enabled

Port Role   :Designated Port

Port Priority   :128

Port Cost(Dot1T)   :Config=100 / Active = 100

Designated Bridge/Port :32768.4c1f-cc4f-26df / 128.1

Port Edged   :Config=default / Active=disabled

Point-to-point   :Config=auto / Active=true

Transit Limit   :147 packets/hello-time

Protection Type   :None

Port STP Mode :None

Which of the following statements are true?

Answer:

The switch uses the default priority

The administrator has changed the path cost of the port by running the stp path cost command.

29. Refer to the following ACL configuration on a device. Which of the following statements are true?

Acl number 2000

   rule 5 deny source 10.1.1.1   0

   rule 10 deny source 10.1.1.2   0

   rule 15 permit source 10.1.1.0   0.0.0.255

Answer:

Packets with the source IP address 10.1.1.3 will be permitted by the device

Packets with the source IP address 10.1.1.2 will be filtered out by the device

30. A WLAN is constructed using wireless technologies. Which of the following are wireless network types based on the application scope?

Answer:

ABCD

31. IPv6 have many advantages over IPv4. Which of the following statements about these advantages are true?

   Answer:

   Supports the configuration of stateless address autoconfiguration (SLAAC) addresses.

   Provides a larger address space due to being 128 bits in length.

   Simplifies the packet header and supports new applications using extension headers.

32. PPP over Ethernet (PPPoE) is a link layer protocol that encapsulates PPP frames into Ethernet frames. Which of the following statements about PPPoE are true?

   Answer:

   ABCD