

Huawei Certified Pre-sales Associate-IP Network

Huawei H19-301

Version Demo

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Topic Break Down

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QUESTION NO: 1

Which models have fixed voice ports? (Choose all that apply.)

- A. AR651C
- B. AR161G-L
- C. AR129CGVW-L
- D. AR129CV

ANSWER: C D

Explanation:

AR129CGVW-L and AR129CV have fixed voice ports. In Huawei's AR model naming, the voice-related designation identifies variants that integrate voice access hardware rather than relying solely on a separately installed voice interface module. These compact access routers are designed for branch deployments that need to connect traditional analog telephones or fax equipment to an IP voice service, while also providing routing and WAN access functions. Their fixed voice interfaces allow the router to deliver this connectivity immediately as part of the chassis hardware, which is particularly useful at small sites where a compact all-in-one device is preferred.

Huawei's access-router documentation distinguishes fixed-interface capabilities from expansion-slot capabilities and lists interface specifications by exact model. Therefore, selection must be based on the model-specific interface table, not merely on the fact that a device belongs to an AR router family. The AR129CGVW-L combines cellular, voice, and WLAN-oriented capabilities, and the AR129CV is likewise a voice-capable AR129 variant with fixed voice connectivity. Huawei's access-router portfolio and product documentation can be consulted for model positioning and detailed interface specifications: [Huawei Access Routers](#) and [Huawei Enterprise Support](#).

QUESTION NO: 2

Each AP needs to be designed to cover as large area as possible in order to provide better coverage in a high-density scenario.

- A. True
- B. False

ANSWER: B

Explanation:

False is correct. High-density WLAN design is primarily capacity-driven rather than coverage-driven. Although every client still requires an adequate signal level, configuring each AP to cover the largest possible area creates oversized RF cells. In a venue with many users, oversized cells increase the number of clients contending for the same radio resources and enlarge the interference domain. This reduces available airtime per user and can make channel reuse more difficult.

A better high-density approach is to use appropriately sized, smaller cells, place APs according to the expected client distribution and capacity demand, and carefully plan transmit power, antenna patterns, channels, and channel bandwidth. Cell overlap should be sufficient to support roaming, but not so extensive that co-channel contention dominates the deployment. This enables more effective frequency reuse and distributes associated stations across more AP radios, improving user experience and aggregate capacity. Huawei WLAN planning guidance treats coverage, capacity, and interference as interdependent RF design factors; capacity requirements must determine AP density in high-user-density locations. See Huawei Enterprise Support documentation at [Huawei WLAN product documentation](#) and Huawei's WLAN solution resources at [Huawei Enterprise Wireless](#).

QUESTION NO: 3

How many spatial streams do AP8050DN and AP8150DN have at 5GHz?

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

ANSWER: D

Explanation:

4 is correct. At 5 GHz, both the Huawei AP8050DN and AP8150DN use a four-transmit, four-receive radio design, enabling four spatial streams. Spatial streams are independent data paths transmitted concurrently through MIMO technology. Four streams increase potential throughput and improve the access point's ability to serve high-capacity wireless clients, provided that the client device, channel width, signal conditions, and modulation capabilities also support the applicable Wi-Fi standard and rates. This 5 GHz capability is an important positioning characteristic of these enterprise WLAN access points because the 5 GHz band offers wider channels and generally more usable spectrum for dense, high-throughput deployments. Huawei's product information and technical documentation for these access-point models identify their radio/MIMO capabilities; consult the Huawei enterprise WLAN portfolio at [Huawei WLAN products](#) and use the official documentation search for the individual model specifications at [Huawei Enterprise Support search](#). Therefore, the required 5 GHz spatial-stream count for both named models is four.

QUESTION NO: 4

The iMaster NCE-Fabric can be deployed in a single-node system.

- A. True
- B. False

ANSWER: A

Explanation:

True is correct. iMaster NCE-Fabric supports a single-node deployment topology, in which the required service components are installed on one server. This topology is suitable for smaller networks, proof-of-concept environments, demonstrations, labs, or situations where high availability is not a design requirement. A single-node installation still provides the platform functions needed to manage fabric devices and deliver automated fabric-related services; it is a supported deployment form rather than an indication that multiple nodes are mandatory for every customer deployment.

Deployment planning should nevertheless match the customer's scale, performance requirements, and availability objectives. For production environments needing service continuity and greater resilience, Huawei provides clustered and high-availability deployment approaches so that services can continue when an individual node fails. Therefore, the availability of an HA topology does not remove support for a single-node system; it provides an alternative architecture where redundancy is required. Huawei's iMaster NCE documentation portal provides the product documentation and deployment guidance, while Huawei Enterprise's campus-network materials describe iMaster NCE-Fabric's role in automated network management: [Huawei iMaster NCE-Fabric documentation](#) and [Huawei Campus Network solutions](#).

QUESTION NO: 5

To which scenarios can AR G3 series apply?

- A. 3G/LTE backup
- B. WAN access & edge aggregation
- C. VPN security gateway
- D. LAN egress gateway

ANSWER: A B C D

Explanation:

The AR G3 series is designed as a versatile enterprise access router platform, so it supports all of the listed deployment scenarios. For WAN access and edge aggregation, AR routers connect branch or campus networks to carrier WANs and can aggregate multiple access links. Their cellular capabilities support 3G/LTE backup, maintaining WAN connectivity when a primary wired link fails. The platform also provides VPN functionality, allowing it to act as a VPN security gateway for protected communications between enterprise sites and remote users. At a branch or small campus, its routing, security, NAT, and access-control features also allow deployment as the LAN egress gateway, controlling traffic between the internal LAN and external networks. Huawei describes its AR enterprise routers as integrating routing, security, VPN, and wireless/cellular access capabilities for branch and enterprise WAN applications. These combined functions are why the AR G3 series is applicable to WAN access and aggregation, backup access, VPN gateway, and LAN egress roles rather than being limited to a single routing use case. See Huawei's [enterprise router portfolio](#) and [AR router documentation](#).

QUESTION NO: 6

which model is designed for Smart Classroom?

- A. AR503
- B. AR129
- C. AR169RW-P-M9
- D. AR511

ANSWER: C

Explanation:

AR169RW-P-M9 is the model designed for the Smart Classroom scenario. It is an education-oriented access router model that combines routing and wireless connectivity capabilities needed at the classroom edge, allowing terminals and teaching devices to be connected through a compact, integrated network device. This type of deployment supports the classroom's requirement for reliable access for teachers' and students' endpoints while simplifying branch or room-level network construction and operations. The model's positioning is aligned with Huawei's education networking approach, in which wired and wireless access are coordinated to provide ubiquitous connectivity for digital teaching environments. In a Smart Classroom, this integrated access role is important because interactive displays, teacher devices, student terminals, and other connected instructional equipment require stable local connectivity and centralized network management. Huawei's enterprise router portfolio includes access-router products for campus and branch scenarios, while its education solutions describe the need for cloud-managed, high-quality campus connectivity that supports digital learning. See Huawei's [enterprise router portfolio](#) and its [smart education solutions](#) for the relevant product and solution context.

QUESTION NO: 7

Which of the following are typical Huawei AntiDDoS cases outside China?

- A. KIO in Mexico
- B. Netherlands NBIP
- C. Netherlands Equinix
- D. Netherlands Serverius

ANSWER: A B C D

Explanation:

“KIO in Mexico,” “Netherlands NBIP,” “Netherlands Equinix,” and “Netherlands Serverius” are all typical Huawei AntiDDoS references outside China. Together, these cases represent the types of overseas organizations where carrier-grade DDoS protection is relevant: a Latin American data-center and cloud-services provider, a Dutch anti-abuse and DDoS-mitigation organization, a global digital-infrastructure and interconnection provider with a Netherlands presence, and a Dutch hosting provider. Huawei AntiDDoS solutions are designed for these environments because they provide high-capacity traffic scrubbing, attack detection and mitigation, policy-based protection, and service continuity for customers whose Internet-facing services must remain available during volumetric and application-layer attacks. Such deployments demonstrate that the solution is applicable not only to operators but also to data centers, cloud providers, internet exchanges, and hosting-service ecosystems. Huawei describes its enterprise security portfolio and AntiDDoS capabilities at [Huawei Enterprise Security](#). Additional Huawei corporate information and global solution resources are available at [Huawei Global](#).

QUESTION NO: 8

Which of the following descriptions of CE6857-48S6CQ-EI are correct? (Choose all that apply.)

- A. ToR switch with 10GE downlink and 100GE uplink
- B. Switching capacity is 2.16 Tbit/s
- C. Supporting VXLAN and BGP EVPN
- D. Supporting Microsegmentation

ANSWER: A B C D

Explanation:

The CE6857-48S6CQ-EI is a CloudEngine 6800-series data-center switch designed for high-density leaf or top-of-rack deployments. Its fixed interface configuration provides 48 10GE SFP+ ports for server-facing downlinks and six 100GE QSFP28 ports for high-bandwidth uplinks to spine switches. This port combination makes “ToR switch with 10GE downlink and 100GE uplink” an accurate description. The model’s switching capacity is 2.16 Tbit/s, supporting line-rate forwarding for the dense 10GE and 100GE interface mix.

The EI feature set also supports modern virtualized data-center fabrics. VXLAN provides an overlay network that can extend Layer 2 segments across the routed underlay, while BGP EVPN distributes endpoint and reachability information for scalable control-plane operation. These capabilities support automated, elastic fabric networking. In addition, the platform supports VXLAN-based microsegmentation, allowing policy-based isolation of workloads within a shared data-center network. This is useful for implementing granular security boundaries while retaining workload mobility and network virtualization. Huawei’s CloudEngine 6800 product information and technical documentation describe the platform’s high-density interfaces, fabric features, VXLAN EVPN capabilities, and security-oriented virtualization functions: [Huawei CloudEngine 6800 Series](#) and [Huawei Enterprise Support—CloudEngine 6800 Series](#).

QUESTION NO: 9

FCoE achieves converged SAN network, which type of TOR can not support FCoE?

- A. CE7850
- B. CE6850
- C. CE6810
- D. CE5800

ANSWER: C

Explanation:

CE6810 is the correct choice. Fibre Channel over Ethernet is not simply ordinary Ethernet transport for storage traffic: an FCoE-capable top-of-rack switch must provide the relevant lossless-Ethernet and Fibre Channel forwarding/control

capabilities required to operate as part of an FCoE storage fabric. In Huawei's CloudEngine portfolio, CE6810 models are positioned as fixed high-performance Ethernet switches, but they do not provide FCoE service support. Therefore, they cannot be selected when the design requirement is a converged SAN based on FCoE.

This distinction is important in presales design. A network may use lossless Ethernet features such as Priority-based Flow Control and Enhanced Transmission Selection for storage-adjacent traffic, but those features alone do not make a switch an FCoE switch. The hardware and software feature set must explicitly support FCoE. Huawei's data-center switch portfolio separates capabilities by model and product series, so the precise model must be validated against its feature documentation rather than inferred from its port speed or its use as a top-of-rack device. See Huawei's [CloudEngine 6800 series overview](#) and [CloudEngine documentation portal](#) for product and feature-reference information.

QUESTION NO: 10

What is the protection level of Huawei's outdoor AP?

- A. IP41
- B. IP55
- C. IP66
- D. IP68

ANSWER: D

Explanation:

IP68 is the protection level associated with Huawei outdoor access points in this product context. The IP rating is defined by IEC 60529: the first digit, 6, denotes a dust-tight enclosure that prevents dust ingress, while the second digit, 8, denotes protection for continuous immersion in water under conditions specified by the manufacturer. This robust enclosure rating is appropriate for wireless equipment deployed outdoors, where devices can be exposed to wind-blown dust, rain, washdown conditions, and temporary or sustained water exposure depending on the installation environment.

Huawei's outdoor WLAN access-point portfolio specifies IP68 protection for applicable outdoor models, supporting deployment in locations such as campuses, public areas, industrial sites, and other exposed environments. The protection classification concerns the device enclosure and helps preserve reliable operation when the AP is installed according to the product documentation, including requirements for mounting, grounding, cable sealing, and connector protection. See Huawei's [outdoor access point portfolio](#) and the IEC's [IEC 60529 ingress-protection standard](#) for the IP-code framework.

QUESTION NO: 11

When CloudEngine virtualized as Core of DC and Core of Campus using only one physical device, the service should separate with each other. So () is just the features

- A. CSS
- B. VS
- C. Trill
- D. SVF

ANSWER: B

Explanation:

VS is the appropriate feature because Huawei Virtual System technology partitions one physical CloudEngine switch into multiple logically independent virtual systems. Each virtual system can be assigned its own management context, configuration, interfaces, VLAN resources, routing and forwarding resources, and administrators. This allows the same physical device to operate as separate logical cores for a data-center network and a campus network while maintaining service and management isolation between the two environments. The separation is especially useful where a customer

wants to consolidate hardware without merging operational domains or allowing one service domain's configuration changes to affect the other. VS therefore provides the required multi-tenancy and independent service-plane separation on a single CloudEngine platform, while preserving the performance and reliability benefits of a high-end physical core switch. Huawei positions CloudEngine switches for both campus and data-center networking scenarios, where virtualization and resource isolation can support consolidated network deployments. See Huawei's [CloudEngine Data Center Switches](#) overview and the [Huawei Enterprise documentation portal](#) for CloudEngine feature documentation.

QUESTION NO: 12

For NE9000, if the customer requires 5*100GE interfaces, you should:

- A. 2T line card
- B. 2T line card in the CM mode + 10*100GE Base license
- C. 2T line card in the CM mode + 7*100GE Base license
- D. 2T line card in the CM mode + 5*100GE Base license

ANSWER: B

Explanation:

The appropriate selection is **2T line card in the CM mode + 10*100GE Base license**. On an NE9000, a 2T line card operating in CM mode provides the required hardware basis for high-speed 100GE interface deployment, while the usable 100GE port capacity is controlled through the applicable Base licenses. The licensing granularity for this CM-mode scenario is a block of ten 100GE Base licenses rather than a license quantity exactly matching a five-port requirement. Therefore, even when the immediate requirement is only five 100GE interfaces, the ten-port Base-license allocation must be selected to activate compliant 100GE capacity on the card. This also leaves licensed capacity available for later expansion without changing the line-card selection or licensing model. Huawei's enterprise support portal provides the product documentation, hardware descriptions, and licensing guidance used to validate NE9000 configurations: [Huawei Enterprise Support](#). Huawei's routing product information can also be consulted for the NE9000 platform and its high-capacity interface positioning: [Huawei NE9000](#).

QUESTION NO: 13

Which of the following switches supports MPLS?

- A. S5720-LI
- B. S5720-SI
- C. S6720-SI
- D. S5720-HI

ANSWER: C D

Explanation:

S6720-SI and **S5720-HI** are correct because these switch families provide MPLS capabilities intended for use in enterprise aggregation, core, and campus-network deployments. Their supported MPLS feature sets allow the devices to participate in an MPLS forwarding domain by processing label-based traffic and supporting relevant control-plane and service functions, subject to the specific model and software version. This enables designs that use MPLS to separate traffic, build scalable Layer 3 VPN-oriented services, and integrate switching infrastructure with an MPLS-enabled IP network. Huawei positions the S5720-HI as a higher-capability fixed switch family with advanced routing and MPLS service support, while the S6720-SI family supplies higher-performance aggregation functionality and MPLS features. In practice, engineers should still verify the exact device model, license status, and VRP release before deploying a particular MPLS function, because support can vary by hardware variant and software package. Huawei's product documentation and feature-support information provide the authoritative per-version validation: [Huawei S5720-HI documentation](#) and [Huawei S6720-SI documentation](#).

QUESTION NO: 14

Which of the following devices are data center fixed switches with flexible cards?

- A. CE8860
- B. CE12800
- C. CE8861
- D. CE6865
- E. CE6857

ANSWER: A C

Explanation:

CE8860 and **CE8861** are Huawei CloudEngine data-center fixed-switch models designed with flexible-card expansion capability. They combine the operational simplicity and compact form factor of a fixed switch with the ability to select interface-card configurations suited to changing data-center uplink, spine, or high-density server-connectivity requirements. This architecture lets an organization adapt port types and bandwidth capacity without adopting a fully modular chassis platform, supporting scalable leaf-spine network designs and progressive migration to higher-speed Ethernet services.

The CE8800 series is positioned by Huawei as a family of high-performance data-center switches for cloud data centers. Within this family, CE8860 and CE8861 flexible-card models provide a practical balance between fixed-switch deployment and configurable interface capacity. Huawei's product information for the CloudEngine 8800 family describes its role in building high-performance, lossless Ethernet data-center networks, while Huawei's data-center switching portfolio distinguishes fixed-form-factor products from chassis-based systems. See Huawei's [CloudEngine 8800 Series overview](#) and its [data-center switches portfolio](#).

QUESTION NO: 15

On an Ethernet broadcast network, which OSPF parameters must match between two routers for them to establish an adjacency? (Choose all that apply.)

- A. Area ID
- B. Hello interval
- C. Dead interval
- D. Authentication settings
- E. Router ID

ANSWER: A B C D

Explanation:

OSPF neighbors on an Ethernet broadcast segment must use the same **area ID**, **Hello interval**, **Dead interval**, and compatible **authentication settings**. They must also have matching network masks on the shared broadcast segment. If these parameters do not match, received Hello packets are rejected and the routers cannot establish an OSPF adjacency.

Router IDs must be unique within the OSPF domain; matching router IDs would create an OSPF router-ID conflict rather than allow adjacency formation. The OSPF Hello packet and neighbor-establishment requirements are described in [RFC 2328](#).

QUESTION NO: 16

Which 2 types of IT router line card that NE router could support? (Multiple Choice)

- A. 8*1000 line card
- B. 10*100G line card
- C. 24*40G line card
- D. 96*100 line card

ANSWER: A C

Explanation:

The applicable line-card types are **8*1000 line card** and **24*40G line card**. NetEngine routers use a modular architecture in which the chassis accepts service/line-processing units with specific port densities and interface rates. An eight-port 1000M interface card provides Gigabit Ethernet service-side connectivity, which is appropriate where aggregation routers connect enterprise access networks, legacy transport handoffs, or lower-speed peer devices. A twenty-four-port 40G card provides high-density 40 Gigabit Ethernet capacity for aggregation and backbone-facing links, allowing a router to scale its forwarding interfaces while retaining the flexibility of modular hardware.

These card types reflect the mix of interface speeds available in Huawei NetEngine routing platforms: lower-rate Ethernet interfaces support broad access and aggregation requirements, while dense high-speed interfaces support high-capacity IP backbone deployment. Actual board availability is chassis- and version-dependent, so product selection should be validated against the relevant device hardware description and compatibility documentation. Huawei's NetEngine router portfolio and its modular, high-capacity positioning are described on the [Huawei Enterprise Routers page](#); Huawei documentation and product-support resources are available through the [Huawei Enterprise Support portal](#).

QUESTION NO: 17

Which switches support remote power supply (RPS)? (Multiple Choice)

- A. S5700S-LI
- B. S5700-LI
- C. S5710-EI
- D. S5700-HI
- E. S5720-HI

ANSWER: A B

Explanation:

S5700S-LI and **S5700-LI** are the applicable switch series because selected models in these access-switch families provide an RPS interface and can use Huawei's Remote Power Supply System. RPS is designed to provide backup power to a connected fixed switch when its local power supply fails, improving service continuity without requiring each supported access switch to use an internal redundant power module. The feature is model- and hardware-version-dependent, so the presence of an RPS connector and the applicable RPS cable/system must be verified for the precise switch model during network design and deployment. Huawei's documentation for these campus-switch families identifies their power-supply and external backup-power capabilities in the hardware and installation material. This is particularly useful in wiring-closet deployments, where centralized backup power can simplify resilience planning for access-layer devices. Huawei's enterprise support portal provides the product documentation and hardware guides used to confirm supported configurations: [Huawei Enterprise Support](#). Huawei also provides its campus-switch portfolio information at [Huawei Campus Switches](#).

QUESTION NO: 18

Which models does S12700 compete against overseas? (Multiple Choice)

- A. Cisco 3850

- B. Cisco 6800
- C. Cisco 4500X
- D. Cisco N9000
- E. HP 10500

ANSWER: B E

Explanation:

The Huawei S12700 is positioned as a high-end, modular campus-core switch family. Its competitive comparisons therefore focus on other modular chassis platforms designed to provide high-capacity campus aggregation/core connectivity, resilient hardware architecture, and extensive service scalability. Cisco 6800 is an appropriate competitor because the Catalyst 6800 family was Cisco's modular campus switching platform for large enterprise campus core and distribution deployments. HP 10500 is likewise a comparable high-end modular enterprise campus switch family, intended for core-layer deployments requiring large port density and high switching capacity. These product families address the same broad customer requirement: building a scalable and highly available wired campus backbone rather than deploying a fixed access switch or a data-center-oriented platform. Huawei describes the S12700 series as an agile campus switch product family for large campus networks, including core-switch roles. Cisco's Catalyst 6800 documentation identifies the platform as a campus switching solution, while HPE documentation for the 10500 series describes a modular chassis switch architecture for enterprise networks. See Huawei's [S12700 product information](#) and Cisco's [Catalyst 6800 series overview](#).

QUESTION NO: 19

Which of the following functions are supported by iMaster NCE?

- A. Management functions
- B. Control functions
- C. Analysis functions

ANSWER: A B C

Explanation:

iMaster NCE supports management functions, control functions, and analysis functions as integral capabilities of Huawei's network automation and operations platform. Management functions provide centralized lifecycle operations, including device onboarding, configuration deployment, inventory visibility, and policy-based service management. This gives administrators a unified operational view across the managed network and helps standardize provisioning workflows. Control functions translate intended network policies into device-level actions and enable centralized, automated service orchestration. They provide the platform's ability to coordinate network behavior rather than requiring administrators to configure each device independently. Analysis functions collect and process network telemetry, alarms, performance information, and experience-related data to identify trends, assess network health, and support proactive optimization and troubleshooting. Together, these capabilities implement a closed operational loop: manage the network, control and automate its services, and analyze its running state and user experience. Huawei describes iMaster NCE as an intelligent network management and control platform that uses analytics and automation to support intent-driven network operations. See Huawei's [iMaster NCE product page](#) and its [intent-driven networking solution overview](#).

QUESTION NO: 20

What are the EVN application scenarios? (Multiple Choice)

- A. Multiple DCs resources integration.
- B. Data center disaster recovery.
- C. Across DC VMs migration, flexible service deployment.

D. Simplifying configuration, reducing deployment and maintenance investment.

ANSWER: A B C D

Explanation:

Huawei Ethernet Virtual Network (EVN) is intended for data-center interconnection, extending a virtualized Ethernet network across geographically separated data centers while keeping service networking operationally simple. Therefore, **Multiple DCs resources integration**. is an EVN application scenario: it enables resources located in separate sites to be interconnected and used as a coordinated resource pool. **Data center disaster recovery**. is also applicable because inter-data-center connectivity supports service continuity architectures and the placement of recovery resources at another site.

Across DC VMs migration, flexible service deployment. is a core EVN use case. A consistent virtual network across sites allows workloads and associated network policies to be deployed or moved between data centers with fewer network changes. Finally, **Simplifying configuration, reducing deployment and maintenance investment**. describes the operational value of EVN. Centralized, virtualized network construction reduces the need to repeatedly build and adjust separate physical network services for each inter-data-center requirement. Huawei positions data-center networking around cloud-oriented resource sharing, resilient multi-site services, and simplified operations; see [Huawei Data Center Network](#) and the [Huawei Enterprise Support documentation portal](#) for product documentation and configuration guidance.

QUESTION NO: 21

Policy association enables gateways to manage user access policies in a unified manner and implement user access policies on gateways and authentication access devices to resolve the conflict between policy strength and complexity in large-scale campus networks.

A. False

B. True

ANSWER: B

Explanation:

True is correct. In Huawei's cloud-managed campus networking architecture, policy association is designed to centralize and simplify the deployment of user access control. Administrators define access policies centrally and associate them with relevant user or access scenarios, allowing the controller to deliver consistent policy enforcement to both gateway devices and authentication access devices. This avoids requiring administrators to manually create and maintain large numbers of device-specific configurations as the campus grows.

The feature is particularly valuable in large-scale networks because access control often requires both fine-grained policy strength and operational simplicity. Policy association supports unified policy management while ensuring that the appropriate enforcement points receive the policy information needed to control user access. It therefore helps maintain consistent authorization behavior across the campus while reducing configuration complexity and the risk of inconsistent manual deployment. Huawei's Campus Network documentation describes centralized policy management and policy delivery as core controller-based campus capabilities; see [Huawei Campus Network Encyclopedia](#) and [Huawei iMaster NCE-Campus Documentation](#).

QUESTION NO: 22

The benefit of CSS+iStack/SVF is () (Multiple Choice)

A. simplified management

B. loop free L2 network

C. no STP deployment

D. 100% link usage

ANSWER: A B C D

Explanation:

CSS, iStack, and SVF are Huawei switch-virtualization technologies that combine multiple physical devices into a logically unified system. This unified control model delivers *simplified management*: administrators can use a single management address and perform configuration, software maintenance, and monitoring from the perspective of one logical switch or fabric rather than independently managing every member device.

Virtualization also creates a *loop free L2 network* inside the virtualized system. Physical interconnection links between member switches are treated as internal logical paths rather than conventional Layer 2 switching links that require blocked redundant paths. Consequently, *no STP deployment* is required for loop prevention within the CSS, iStack, or SVF virtual system itself. This does not remove the need to consider loop prevention where the virtual system connects to external Layer 2 networks.

Because member and uplink links can be bundled and forwarded concurrently as logical aggregated links, the architecture supports *100% link usage* for those designed redundant paths, instead of leaving a backup link blocked by spanning tree. Huawei describes switch virtualization and stacking capabilities in its [enterprise switch portfolio](#) and provides technical documentation through the [Huawei Enterprise Support documentation portal](#).

QUESTION NO: 23

To which scenarios can AR G3 series apply? (Choose all that apply.)

- A. 3G/LTE backup
- B. WAN access & edge aggregation
- C. VPN security gateway
- D. LAN egress gateway

ANSWER: A B C D

Explanation:

AR G3 series routers are designed as enterprise branch and WAN-edge devices, so all of the listed deployment scenarios apply. **3G/LTE backup** is supported through cellular access capabilities, allowing a branch to maintain WAN connectivity when its primary wired circuit fails. **WAN access & edge aggregation** is a core router use case: AR devices connect enterprise sites to carrier networks and can aggregate access links at the WAN edge. They can also operate as a **VPN security gateway**, providing encrypted site-to-site or remote-access connectivity through VPN technologies and applying security services at the branch perimeter. Finally, an AR G3 can be used as a **LAN egress gateway**, routing users on a campus or branch LAN toward external WAN and Internet resources while enforcing gateway policies. These roles reflect the converged routing, WAN, VPN, security, and mobile-uplink functions positioned for Huawei enterprise access routers. Huawei's enterprise-router portfolio overview describes routers as devices for branch interconnection and WAN access, while its product information highlights integrated routing and security capabilities. See [Huawei Enterprise Routers](#) and [Huawei Enterprise Router Portfolio](#).

QUESTION NO: 24

Nowadays the utilization efficiency of network resources is highly valued to achieve low capex and opex. And also the DCI network configuration should be more and more flexible to support the rapid emerging new service.

Huawei provide SDN based Agile TE/GRE DCI solution to confront such challenges.

- A. TRUE
- B. FALSE

ANSWER: A

Explanation:

TRUE is correct. Huawei's SDN-oriented data-center interconnect approach is intended to improve transport-resource utilization while making inter-data-center connectivity more programmable and responsive to changing service requirements. In this context, Agile TE provides centralized, policy-driven traffic-engineering capabilities: paths and bandwidth can be planned and adjusted according to service intent and network conditions rather than relying solely on static, manually maintained configurations. GRE provides an overlay encapsulation mechanism that can carry services across an IP transport network, helping decouple service connectivity from the physical underlay topology. Together, these mechanisms support flexible DCI deployment and evolution, including rapid service provisioning and traffic steering, while helping operators use existing WAN resources more efficiently. These outcomes directly address the stated goals of controlling capital and operating expenditure and accommodating rapidly emerging services. Huawei describes SDN as enabling centralized control, automation, and more agile network operations in its [Software-Defined Networking solution overview](#). Huawei's enterprise networking portfolio also identifies data-center networking and interconnection as key scenarios for programmable network infrastructure: [Huawei Enterprise Networking](#).

QUESTION NO: 25

The maximum overall data rate of AP7050DE

- A. 1.3Gbps
- B. 1.73Gbps
- C. 2.33Gbps
- D. 2.53Gbps

ANSWER: D

Explanation:

The maximum overall data rate of AP7050DE is **2.53Gbps**. This is the aggregate theoretical PHY rate obtained by adding the maximum rates available from its two radios: up to 800 Mbps on the 2.4 GHz radio and up to 1.733 Gbps on the 5 GHz radio. Together, these values equal approximately 2.533 Gbps, conventionally presented as 2.53 Gbps in product specifications and training material. This aggregate figure describes the maximum simultaneous radio capacity, rather than throughput that a single wireless client can necessarily achieve. Actual user throughput will be lower because of protocol overhead, radio conditions, channel width, client capabilities, interference, and network load. The AP7050DE product information identifies it as a high-performance dual-band access point designed to provide this combined wireless capacity. Huawei WLAN documentation and product resources are available through the [Huawei WLAN product portal](#) and the [Huawei Enterprise Support portal](#), where model-specific documentation can be accessed.

QUESTION NO: 26

In a data center solution, high reliability is required for key services. Which modules (components) of CE switches can support hot backup?

- A. Fabric card
- B. Power supply
- C. Fan
- D. Main processing unit

ANSWER: A B C D

Explanation:

CE data-center switches use hardware-level redundancy to maintain forwarding and management continuity when a key field-replaceable component fails or is serviced. Fabric card redundancy provides continued switching-capacity availability

through redundant switch-fabric resources. Power supply redundancy, commonly deployed in N+1 or greater configurations, allows the chassis to remain powered when one supply is unavailable. Fan redundancy provides continued cooling capacity, protecting the switch from thermal faults while a failed fan module is replaced. The main processing unit supports active/standby hot backup: configuration, protocol, and control-plane state can be synchronized so that the standby processing unit can take over with minimal service impact. Together, these mechanisms are the basis of the CE chassis reliability design used for critical data-center services. Huawei describes its CloudEngine data-center switches and their carrier-grade reliability capabilities at [Huawei Data Center Switches](#); the related product documentation and hardware/reliability material is available through the [Huawei Enterprise Support](#) portal.

QUESTION NO: 27

Which statements are true about the S6720-SI multi-gigabit switch? (Choose all that apply.)

- A. Supports 1G/2.5G/5G/10G multi-gigabit port
- B. Supports 60W PoE++ power supply within 200m
- C. Supports SVF feature

ANSWER: A B C

Explanation:

The S6720-SI is designed for high-speed campus access deployments, particularly where wireless access points and other edge devices need bandwidth beyond traditional Gigabit Ethernet. “Supports 1G/2.5G/5G/10G multi-gigabit port” is therefore correct: the series provides multigigabit Ethernet interfaces that can negotiate these rates, helping organizations upgrade access bandwidth while continuing to use suitable existing copper cabling.

“Supports 60W PoE++ power supply within 200m” is also a supported deployment capability. High-power PoE enables one switch port to supply power to demanding endpoints, and the extended-distance capability is useful for devices installed beyond the standard access-cabling range, such as remote access points, cameras, or other powered terminals.

“Supports SVF feature” is correct as well. Huawei Super Virtual Fabric virtualizes a parent switch together with connected client switches for centralized management and simplified operations. This reduces the number of independently managed devices and makes campus access-layer expansion more efficient. Huawei identifies the S6720-SI as a campus-switch series and documents its relevant product capabilities in its [S6720-SI product information](#) and [switch configuration documentation](#).

QUESTION NO: 28

AR503EQGW-L can support GPS

- A. TRUE
- B. FALSE

ANSWER: A

Explanation:

TRUE is correct. The AR503EQGW-L is an AR500-series enterprise router model designed for cellular and wireless branch or field deployments. In this model designation, the integrated wireless/cellular feature set includes GNSS positioning capability, allowing the device to use GPS for location-related functions. GPS support is valuable in scenarios such as transportation, retail branches, temporary sites, and distributed industrial deployments, where centrally managed equipment location information can assist asset visibility and operations. This is a hardware capability rather than merely a software feature: use of GPS requires the applicable cellular/GNSS hardware configuration and an appropriate connected antenna, as specified for the device deployment. Huawei’s AR500 family is positioned as a compact enterprise router platform with wireless-access variants and features intended for mobile and geographically distributed WAN use. The AR503EQGW-L belongs to that product family and supports GPS positioning. Consult the AR500-series product information and the relevant

hardware documentation for installation requirements, interface details, antenna selection, and regional feature availability: [Huawei AR500 Series Enterprise Routers](#) and [Huawei Enterprise Router Documentation](#).

QUESTION NO: 29

Free mobility is supported on a hybrid network consisting of Huawei and third-party devices, and the authentication point can be deployed on third-party devices.

- A. True
- B. False

ANSWER: B

Explanation:

False is correct. Huawei CloudCampus Free Mobility provides identity-based access control in which a user's authorization and security policy can follow that user as they move through the campus. A hybrid campus can incorporate Huawei and third-party equipment for interoperability and network connectivity, but the authentication function required for Free Mobility is implemented at a Huawei-supported authentication point. This enables iMaster NCE-Campus and Huawei network devices to obtain the user identity and endpoint context needed to associate the user with the applicable group, authorization result, and policy. Third-party devices can therefore participate in the broader hybrid network, but they are not deployment locations for the Free Mobility authentication point itself. Keeping authentication on supported Huawei access devices also ensures that the identity-to-policy workflow has the device capabilities and controller integration required by the solution. Huawei describes CloudCampus as an intent-driven campus architecture built around centralized management, automation, and policy-based network services; Free Mobility is one of the campus access capabilities delivered through that architecture. See Huawei's [CloudCampus solution overview](#) and the [Huawei Enterprise Support documentation portal](#) for product documentation and feature deployment guidance.

QUESTION NO: 30

Which of the following markets do not Huawei NetEngine routers focus on?

- A. Campus
- B. Finance
- C. Transportation and power grid
- D. Government and education

ANSWER: A

Explanation:

Campus is correct. Huawei positions the NetEngine router portfolio primarily for WAN, backbone, aggregation, branch interconnection, and industry-network deployments rather than as its dedicated campus-network product line. NetEngine routers provide routing, WAN access, VPN connectivity, high reliability, and service integration capabilities needed to connect geographically distributed sites and carry critical services across enterprise or industry networks. This positioning aligns with vertical deployments that have extensive branch, wide-area, or operational-technology connectivity requirements, such as financial organizations, transportation systems, electric-power networks, public-sector organizations, and education networks.

Huawei's campus-network architecture is instead centered on campus switches, WLAN products, and associated cloud-management platforms. These products are designed for access-layer and aggregation-layer connectivity inside office buildings, schools, and similar local campus environments, including wired and wireless user access. A NetEngine router can certainly be deployed at a campus WAN egress or to connect a campus to other sites, but "Campus" is not the market focus described for the NetEngine router family in this question. Huawei's router portfolio overview is available at [Huawei Enterprise Routers](#), and Huawei's campus-network portfolio is described at [Huawei Campus Network](#).

QUESTION NO: 31

The maximum distance of POE function is ()?

- A. 50m
- B. 100m
- C. 150m
- D. 200m

ANSWER: B

Explanation:

100m is correct because standard Ethernet Power over Ethernet is designed to deliver both data and DC power over a structured-cabling channel with a maximum length of 100 metres. This channel is normally composed of up to 90 metres of permanent horizontal cabling plus up to 10 metres of patch cords. Huawei PoE-capable access switches follow the IEEE Ethernet PoE framework, so 100 m is the normal maximum design distance between the power sourcing equipment, such as a PoE switch, and the powered device, such as an access point, IP phone, or camera.

The distance limit is important because copper-cable resistance causes voltage drop and power loss as the cable run becomes longer. Keeping the link within the 100 m channel specification supports reliable Ethernet signaling and allows the powered device to receive power within the applicable PoE power budget. Where a device must be deployed farther away, network designs commonly use an intermediate PoE extender, a locally powered switch, or fiber with power available at the remote endpoint. The IEEE 802.3af PoE standard is available from the [IEEE 802.3af standard page](#); Huawei's enterprise networking documentation and product resources are available through the [Huawei Enterprise Support portal](#).

QUESTION NO: 32

Which of the Cisco product are corresponding to Huawei NE40E series product? (Multiple Choice)

- A. ASR9006
- B. ASR9010
- C. ASR9912
- D. ASR9922

ANSWER: A B C D

Explanation:

ASR9006, ASR9010, ASR9912, and ASR9922 are corresponding Cisco platforms because they are all modular carrier-routing systems in Cisco's ASR 9000 family, aimed at service-provider backbone, aggregation, and edge deployments. Huawei's NE40E series is likewise a high-end universal service router family for carrier networks, providing large capacity, modular chassis architecture, high interface density, resilient hardware design, and IP/MPLS service capabilities. Accordingly, these platforms are commonly positioned against each other in competitive product comparisons based on network role rather than requiring an identical slot count or throughput value. ASR9006 and ASR9010 represent smaller and midrange modular chassis choices, while ASR9912 and ASR9922 are higher-capacity chassis choices. Together, they cover the same broad carrier-router market segment addressed by different NE40E chassis models. Cisco describes the ASR 9000 Series as a network-edge platform for service providers, and Huawei identifies the NE40E family as a universal service router product line for carrier applications. See the [Cisco ASR 9000 Series overview](#) and Huawei's [carrier router portfolio](#) for the relevant product-family positioning.

QUESTION NO: 33

EVPN is used as control plane for Vxlan of CE switch.

- A. TRUE
- B. FALSE

ANSWER: A

Explanation:

TRUE is correct. In a VXLAN deployment, EVPN provides the standards-based BGP control plane that distributes tenant-network reachability information between VXLAN tunnel endpoints. A CE switch acting as a VXLAN tunnel endpoint can use BGP EVPN to advertise and learn MAC addresses, IP-to-MAC bindings, and broadcast-domain information for its virtual networks. This lets the devices establish VXLAN forwarding entries through control-plane signaling rather than relying only on data-plane flooding and learning. As a result, EVPN improves scalability and supports efficient handling of known unicast, broadcast, unknown unicast, and multicast traffic across the VXLAN overlay. In typical Huawei data-center fabrics, leaf or CE switches function as VXLAN tunnel endpoints, while the underlay supplies IP reachability and BGP EVPN exchanges overlay routes. The combination is commonly called VXLAN EVPN: VXLAN encapsulates tenant traffic over the IP fabric, and EVPN supplies the overlay control-plane information needed to make forwarding decisions. Huawei's VXLAN overview describes EVPN as the VXLAN control-plane protocol, and its EVPN material explains the use of BGP to advertise MAC and IP reachability. See [Huawei VXLAN overview](#) and [Huawei EVPN overview](#).

QUESTION NO: 34

About AR550, which description is wrong?

- A. work between -40°C~+60°C
- B. support SEP, STP
- C. comply with IP54
- D. comply with EN50155

ANSWER: C

Explanation:

The statement “**comply with IP54**” is the incorrect description. Huawei AR550 is a rugged industrial/railway-oriented access router designed for demanding deployment environments, but its specified enclosure protection level is IP40 rather than IP54. Under IEC 60529, the first digit 4 means the enclosure protects against ingress of solid objects larger than 1 mm; the second digit 0 means there is no specified water-ingress protection rating. By contrast, an IP54 rating would additionally require protection against water splashing from any direction, which is not the AR550's stated IP classification. This distinction matters when selecting equipment for rolling-stock, trackside, or industrial installations: the router's environmental specification must match the cabinet, vehicle, or site protection design rather than assuming splash-water protection at the device enclosure itself. Huawei positions the AR550 family as an industrial router with environmental and rail-transport compliance characteristics; its relevant technical documentation should be used to validate the exact model's operating and protection specifications. See Huawei's [enterprise router product information](#) and the IEC overview of [IP ratings](#).

QUESTION NO: 35

Which of the following APs support smart antennas? (Choose all that apply.)

- A. AP4050DE-M
- B. AP7060DN
- C. AP6150DN
- D. AP2051DN

ANSWER: A D

Explanation:

AP4050DE-M and AP2051DN support Huawei smart-antenna technology. This technology uses an integrated antenna array and adaptive antenna-pattern selection to focus RF energy toward associated clients. Rather than radiating with one fixed pattern, the AP can select a more suitable pattern according to client location and the radio environment. This improves effective coverage, signal quality, and the reliability of wireless access, particularly where multipath propagation and interference affect conventional fixed-antenna deployments.

For these AP models, smart antennas are a built-in platform capability and are part of the enterprise WLAN design approach used to improve cell-edge performance and optimize client experience without requiring manual adjustment of antenna direction. When identifying support for this feature, it is important to use the specifications for the exact AP model, because antenna architecture is hardware-dependent and not every Huawei AP implements the same smart-antenna design. Huawei's enterprise WLAN portfolio and product documentation are available through the [Huawei WLAN product page](#) and the [Huawei Enterprise Support documentation portal](#).

QUESTION NO: 36

The desktop USG6530E can compete with all desktop models of Fortinet and Cisco. What is the large-packet throughput of the USG6530E?

- A. 1 Gbps
- B. 3 Gbps
- C. 4 Gbps
- D. 2 Gbps

ANSWER: C

Explanation:

The correct large-packet throughput for the Huawei HiSecEngine USG6530E is **4 Gbps**. The USG6530E is a desktop next-generation firewall in Huawei's USG6500E series, positioned for small and medium-sized organizations and branch scenarios that need enterprise security capabilities in a compact appliance. In firewall throughput specifications, "large-packet" testing represents traffic composed of relatively large Ethernet frames, which reduces packets-per-second processing overhead compared with small-packet traffic. This metric is therefore used to indicate the appliance's maximum forwarding capacity under favorable packet-size conditions.

Huawei's USG6500E-series product information lists performance figures by model and identifies the USG6530E's firewall/large-packet forwarding capacity at 4 Gbps. This capacity helps presales engineers size the device against expected Internet uplink and internal traffic requirements, while separately considering enabled security services, concurrent sessions, and real packet-size distributions. Consult Huawei's [USG6500E Series product page](#) and the [Huawei USG documentation portal](#) for model specifications and deployment documentation.

QUESTION NO: 37

Which model is recommended when small branch of 0 to 50 users?

- A. AR2220
- B. AR2240
- C. AR3260
- D. AR160

ANSWER: D

Explanation:

AR160 is the recommended model for a small branch with approximately 0–50 users. It belongs to Huawei’s access-router range intended for small enterprise sites and branch offices, where the router must provide dependable WAN access together with integrated enterprise services without requiring the capacity of a larger aggregation or regional-branch platform. This sizing aligns the platform with a modest user population and the typical connectivity requirements at a small site, such as Internet or private-WAN access, secure communication with headquarters, routing, and policy-based service delivery. Huawei positions its enterprise routers as devices that provide converged routing and value-added services for branch networking, while its product portfolio separates compact access models from higher-capacity models intended for larger deployments. Selecting AR160 for this user range therefore provides an appropriately scaled branch gateway and helps avoid unnecessary platform capacity and cost. See Huawei’s [enterprise router portfolio](#) and the [Huawei Enterprise router support documentation](#) for product-family and deployment information.