HCIA-Datacom V2.0 Exam Outline

Huawei Certification HCIA-Datacom V2.0 Certification Exam

Exam Code	H12-811
Exam Name	HCIA-Datacom V2.0
Exam language	ENU
Question Type	Single-answer Question, Multiple-answer Question, True or false, Short Response Item, Drag and Drop Item
Exam fees	200 USD
Exam Duration	90 min
Passing score/Total score	600/1000

Exam Content

The HCIA-Datacom V2.0 exam covers basic knowledge of datacom, data center networks, and WLAN, including the network reference model, network device operating system, ethernet switching basics, VLAN fundamentals and configuration, STP fundamentals and configuration, ethernet link aggregation, IP addresses and configuration, IP routing basics, OSPF fundamentals and configuration, IPv6 addresses and configuration, ACL fundamentals and configuration, AAA fundamentals and configuration, network services and applications, NAT fundamentals and configuration, data center network basics, WLAN technology basics, WLAN networking architecture, WLAN fundamentals and configuration, network device management, network programming automation, network troubleshooting, and typical campus networking solution.

Knowledge Point Percentage

Key Points	Percentage
Data Communication Network Basics	10%
Ethernet Technology Basics	20%
IP Technology Basics	25%
Network Security and Services	15%
Data Center Network Basics	5%
WLAN Technology Basics	10%

Network O&M and Troubleshooting	10%
Typical Campus Networking Solution	5%

Knowledge points

Data Communication Network Basics

- Data Communication Network Basics
  - Data Communication Network
  - Data Communication Network Devices
  - Data Communication Process
  - Network Engineering and Network Engineers
- Network Reference Models
  - Applications and Data
  - Network Reference Models and Standard Protocols
  - Data Communication Process
- Network Device Operating Systems
  - Operating System Overview
  - Logging In to Network Devices
  - Configuring Network Devices

Ethernet Technology Basics

- Ethernet Switching Basics
  - Overview of the Ethernet Protocol
  - Overview of Ethernet Frames
  - Working Principles of Ethernet Switches
- VLAN Fundamentals and Configuration
  - What Is a VLAN
  - Basic Concepts of VLANs

- VLAN Application
- VLAN Configuration Examples

- STP Fundamentals and Configuration
  - Overview of STP
  - Basic Concepts of STP
  - Working Principles of STP
  - Basic STP Configuration
  - Advanced Spanning Tree Protocols
- Ethernet Link Aggregation
  - Basic Concepts of Link Aggregation
  - Link Aggregation in Manual Mode
  - Link Aggregation in LACP Mode
  - Link Aggregation Configuration Examples

IP Technology Basics

- IP Address and Configuration
  - Network Layer Protocols
  - Introduction to IPv4 Addresses
  - Subnetting
  - ICMP
  - Fundamentals and Configuration of DHCP
- IP Routing Basics
  - Overview of IP Routing
  - Direct Routes
  - Static Routes
  - Advanced Routing Features
- OSPF Fundamentals and Configuration
  - Overview of OSPF

- Working Principles of OSPF
- Typical OSPF Configuration

- IPv6 Address and Configuration
  - Overview of IPv6
  - ICMPv6
  - IPv6 Address Autoconfiguration
  - IPv6 Address Configuration Example

Network Security and Services

- ACL Fundamentals and Configuration
  - ACL Overview
  - Fundamentals of ACL
  - ACL Configuration Examples
- AAA Fundamentals and Configuration
  - AAA Overview
  - Deploying AAA
  - Configuration Examples for AAA
- Network Services and Applications
  - Overview of Network Services
  - FTP for File Transfer
  - Telnet for Remote Login
  - SSH
- NAT Fundamentals and Configuration
  - Overview of NAT
  - Source NAT
  - Destination NAT
  - Bidirectional NAT

Data Center Network Basics

- Data Center Network Basics
  - DC Evolution
  - DCN Basics

WLAN Technology Basics

- WLAN Technology Basics
  - WLAN Overview
  - Basic WLAN Concepts
  - Key WLAN Technologies
  - Introduction to 802.11 Standards
- WLAN Networking Architecture
  - WLAN Networking Overview
  - WLAN Networking Architecture
  - WLAN Networking Application Scenarios
- WLAN Fundamentals and Configuration
  - WLAN Fundamentals
  - WLAN Service Configuration Procedure
  - WLAN Service Configuration Examples

Network O&M and Troubleshooting

- Network Device Management
  - Basic Concepts of Network Management
  - SNMP
  - NETCONF
  - RESTCONF
  - Introduction to iMaster NCE
- Network Programming and Automation
  - Introduction to Network Programming and Automation

- Overview of Programming Languages and Introduction to Python
- Introduction to Paramiko APIs
- Example for Network Programming Using Paramiko

- Network Troubleshooting
  - Overview of Network Troubleshooting
  - Common Network Troubleshooting Cases

Typical Campus Networking Solution

- Typical Campus Networking Solution
  - Basic Concepts of Campus Networks
  - Practices in Campus Network Projects

NOTE

The test content mentioned in this document provides a general test guide for candidates. Other content not mentioned in this document may also be used in the test.

Reference

Huawei Certified HCIA-Datacom V2.0 Training Materials

Recommended Training

Huawei Certified HCIA-Datacom V2.0 Training