



HCIA-WLAN V3.0 Exam Outline

Huawei HCIA-WLAN V3.0 Certification Exam

Certification	Exam Code	Exam Name	Language	Exam Cost	Exam Duration	Pass Score/ Total Score
HCIA-WLAN V3.0	H12-311	HCIA-WLAN V3.0 (Written)	ENU	200 USD	90 mins	600/1000

Exam Contents

HCIA-WLAN V3.0 covers basic WLAN knowledge, including basic WLAN knowledge, WLAN frequency band, IEEE 802.11 protocol, 802.11 MAC architecture, 802.11 physical layer technology, WLAN networking, CAPWAP basic principles, and data forwarding. Wi-Fi 6 technology, WLAN product introduction, AP initial configuration, WLAN online configuration, and WLAN access authentication. WLAN O&M and troubleshooting, antenna technology, and WLAN project deployment.

Written Exam Key Points Percentage

Chapter	Percentage
WLAN Overview	3%
WLAN Technology Basics	15%
WLAN Networking Model	7%
Introduction to Wi-Fi 6 Technologies and Products	5%
Working Principles of WLAN	25%
WLAN access authentication	5%
WLAN Access Configuration	20%
WLAN Troubleshooting	10%
WLAN Antenna Technology	5%
WLAN Deployment Overview	5%

Knowledge Points

- WLAN Overview
 - WLAN Development History
 - WLAN Standard Organization

- WLAN Technology Basics
 - Introduction to RF Basics
 - WLAN Frequency Bands
 - 802.11 physical layer technology
 - 802.11 MAC Architecture
 - 802.11 Media Access
- WLAN Networking Model
 - WLAN Networking Overview
 - Layer 2 and Layer 3 networking
 - WLAN Service Traffic Forwarding Mode
 - Mainstream WLAN Solutions
- Introduction to Wi-Fi 6 Technologies and Products
 - Introduction to Huawei WLAN Products
 - Application of Huawei WLAN Products
 - Power Supply Modes of Huawei WLAN Products
- Working Principles of WLAN
 - CAPWAP tunnel
 - WLAN Packet Description
 - AP Go-online Process
 - STA go-online process
 - User roaming
 - WLAN Configuration
- VRP Introduction to AC Initial Configuration
 - Introduction to Huawei VRP
 - Basic AC Attribute Configuration
 - Upgrading the AC and AP Software
 - Fat and Fit AP Switchover
- WLAN access authentication
 - WLAN Access Authentication Overview

- WEP/WPA2/WPA3 authentication
- Portal authentication
- 802.1x authentication
- MAC address authentication
- WLAN Access Configuration
 - Configuration Process and Modules
 - AP Online Configuration
 - WLAN Service Configuration
 - Simple WLAN Optimization Configuration
 - WLAN Troubleshooting
- WLAN Troubleshooting
 - WLAN Troubleshooting Overview
 - WLAN Troubleshooting Process
 - WLAN Fault Diagnosis Commands and Troubleshooting Tools
 - Common WLAN Faults and Troubleshooting
 - WLAN project deployment
- WLAN Antenna Technology
 - Antenna Type
 - Antenna parameters
 - Antenna selection
- WLAN Deployment Overview
 - WLAN Network Planning Process
 - WLAN Construction Requirement Analysis
 - Wireless site survey
 - Indoor settled installation
 - Indoor distribution
 - Outdoor settled installation

Note

The content mentioned in this document is a general exam guide only. The exam may also contain



more specific or related content that is not mentioned above.

Reference

HCIA-WLAN V3.0 Training Courses

Recommended Training

HCIA-WLAN V3.0 Training