



HCIP-Routing & Switching-IERS V2.5 Exam Outline

Exam Overview

Certification	Exam Code	Exam Name	Language	Duration	Pass Score/Total Score
HCIP-Routing & Switching	H12-221	HCIP-Routing & Switching-IERS V2.5	Chinese Simplified/ English/Spanish- Modern/French	90 min	600/1000

Exam Outline

The HCIP-Routing & Switching-IERS V2.5 exam covers OSPF, ISIS and BGP routing protocols, Route Control, IP Multicast protocols, and Eth-trunk, Advanced Features Switches, RSTP, MSTP and other two layer network technologies.

Key Points	Percentage
1. OSPF Routing Protocols	28%
2. ISIS Routing Protocols	4%
3. BGP Routing Protocols	26%
4. Routing Control	14%
5. Multicast Protocols	16%
6. Eth-Trunk Technology	3%
7 Advanced Features of Switches	2%
8. RSTP/MSTP	7%

1. OSPF Routing Protocols

1.1 Basic principles of link state routing protocols

1.2 OSPF principles, configuration, and implementation: neighbor and adjacency, protocol packet and LSA, database synchronization, intra-area route calculation, inter-area route calculation, and external route calculation

1.3 Principles and configuration of OSPF special areas: stub area, totally stub area, and not-so-stubby area (NSSA)



2. ISIS Routing Protocols

2.1 ISIS basic principles and configurations

2.2 Differences between IS-IS and OSPF

3. BGP Routing Protocols

3.1 BGP neighbor relationship establishment and configuration

3.2 BGP route generation modes

3.3 BGP route advertisement rules

3.4 Common BGP attributes

3.5 BGP route selection rules

4. Routing Control

4.1 Route filtering by using filtering tools such as ACL, IP-prefix

4.2 Routing policy tools and policy-based routing tools

4.3 Problems caused by route importing and solutions

5. Multicast Protocols

5.1 Basic principles and configuration of IGMPv1/v2/v3 and IGMP snooping

5.2 Basic principles and configuration of PIM-DM and PIM-SM

6. Eth-Trunk Technology

6.1 Eth-Trunk modes

6.2 Eth-Trunk configuration

7. Advanced Features of Switches

7.1 MUX VLAN: application scenario and configuration

7.2 Port Isolation: application scenario and configuration

7.3 Port Security: application scenario and configuration

8. RSTP/MSTP

8.1 Limitations of STP, improvements in RSTP, RSTP configuration

8.2 Limitations of a single spanning Tree, MSTP principles and configuration

Note:

The content mentioned in this article is just a general exam guide; the exam may

also contain more related content that is not mentioned here.



Reference

Huawei Certified ICT Professional Training Courses — HCIP-Routing & Switching:

Implementing Enterprise Routing and Switching Network(IE-RS)

Huawei Certified ICT Professional Training Courses — HCIP-Routing & Switching: Guide to Experiments on Implementing Enterprise Routing and Switching Network(IE-RS)

VRP Configuration Guide

VRP Troubleshooting

VRP Feature Description

Huawei router manuals

Huawei Ethernet switch manuals

Recommended Training

HCIP-Routing & Switching-IERS V2.5 Training