



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

Exam Overview

Certification	Exam Code	Exam Name	Language	Duration	Pass Score/Total Score
HCIP-		HCIP-Routing	Chinese		
Routing &	H12-221	& Switching-	Simplified/	90 min	600/1000
Switching		IERS V2.5	English/Spanish-		
- Curtoring		12110 1210	Modern/French		

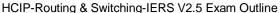
Exam Outline

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



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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



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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