

HCIA Cloud Computing V5.5 — 5-Day TOC

Day 1 — Cloud & IT Fundamentals

1. Cloud Computing Basics —

- IT development trends
- Definition of cloud computing
- Characteristics of cloud computing
- Cloud service models:
 - IaaS
 - PaaS
 - SaaS
- Cloud deployment models
- Public, private and hybrid cloud
- Cloud computing technologies
- Cloud computing use cases

2. Server Basics —

- Server architecture
- CPU
- Memory
- Storage interfaces
- RAID concepts
- Server virtualization support
- Common server components

3. Storage Technology Basics —

- DAS
- NAS
- SAN
- FC SAN
- IP SAN
- Storage virtualization
- RAID 0/1/5/6/10
- Thin provisioning
- Thick provisioning

4. Network Technology Basics —

- IP addressing
- Subnetting basics

- MAC addresses
- VLAN
- Switching
- Routing
- ARP
- TCP/IP basics
- Network isolation
- Virtual networking concepts

Day 2 — Virtualization & FusionCompute Architecture

5. Operating System Basics —

- Operating system fundamentals
- Linux basics
- Basic Linux commands
- Processes
- Files/directories
- Users and permissions
- Network configuration basics

6. Virtualization — 4%

- What is virtualization?
- Benefits of virtualization
- Physical vs virtual resources
- Hypervisors
- Type 1 vs Type 2 hypervisors
- Virtual machines
- CPU virtualization
- Memory virtualization
- Storage virtualization
- Network virtualization
- KVM basics

7. Huawei Virtualization Platform — 6%

- Huawei virtualization architecture
- FusionCompute overview
- FusionSphere concepts
- FusionCompute components
- Management architecture
- Host and cluster concepts
- Planning and deployment

- Resource pools

8. FusionCompute Architecture

Study the relationship between:

- VRM
- CNA
- VM
- Cluster
- Host
- Data Store
- DVS
- VPC/network components

Day 3 — FusionCompute Management ★

9. FusionCompute Compute Virtualization

- VM creation
- VM configuration
- CPU allocation
- Memory allocation
- Resource scheduling
- VM migration
- Live migration
- HA
- DRS
- VM lifecycle
- VM templates
- Snapshots
- Security groups

10. FusionCompute Storage Virtualization

- Data stores
- Local storage
- NAS
- IP SAN
- FC SAN
- Distributed storage concepts
- Storage pools
- Thin/thick provisioning
- Disk configuration
- Storage mapping
- Storage migration

11. FusionCompute Network Virtualization

- vSwitch
- DVS
- Port groups
- VLAN
- NICs
- Network planes
- VM network configuration
- Network isolation
- Security groups

12. FusionCompute Platform Management

- Host management
- Cluster management
- VM management
- Resource pools
- Alarms
- Monitoring
- User management
- Permission management
- System maintenance
- Troubleshooting concepts

Day 3 Must-Know Comparisons

- CNA vs VRM
- Cluster vs host
- DVS vs traditional switch
- Snapshot vs backup
- Thin vs thick provisioning
- HA vs DRS
- Local storage vs shared storage
- IP SAN vs FC SAN vs NAS

Day 4 — FusionAccess ★

13. FusionAccess Overview —

- What is FusionAccess?
- Desktop cloud architecture

- FusionAccess components
- HDP
- Application scenarios
- Virtual desktop concepts

14. FusionAccess Planning & Deployment —

- Component planning
- Network planning
- Server planning
- IP planning
- Installation
- Initial configuration
- Domain-related configuration
- License concepts
- System components and relationships

15. FusionAccess Service Provisioning — 17% ★

- Desktop cloud service flow
- VM/template concepts
- Bare VM
- Template creation
- Template optimization
- Desktop provisioning
- Linked clones
- Full copies
- Desktop pools
- User assignment
- Desktop allocation
- Quick provisioning
- Desktop login process

16. FusionAccess Features & Management —

- Desktop management
- User management
- Policy management
- Desktop policies
- Login policies
- Network policies
- Maintenance
- Monitoring
- Troubleshooting

Day 5 — Trends + Revision + Mock Exam

Cloud Computing Trends

- OpenStack
- Containers
- Kubernetes concepts
- Cloud-native computing
- Edge computing
- AI + cloud
- Big data + cloud
- Software-defined infrastructure
- Emerging cloud technologies