

CCNA ROUTING & SWITCHING

EXAM CODE : 200 – 120

RJP Infotek Pvt Ltd
10, United India Colony I Main Road
Kodambakkam, Chennai 600024
www.rjpinfotek.com

Network Essentials

- Evolution of Today's Networks
- Impact of Applications running on the Network
- Network Classification & Topologies
- Standards – ISO's 7 Layer OSI Model, DoD's 4 layer TCP/IP Model & Cisco's 3 Layer Model
- Protocols at Various Layers
- Networking Devices – Hub, Switch, Router
- Introduction to WAN

IP Addressing

- IPv4 Address Management & Allocation
- Anatomy of an IPv4 Address
- Classful Networks & Subnetting
- Classless IP Addressing, VLSM & CIDR
- IPv6 Addressing



Life of Packet in a Network

- How Data is transmitted over a Switched Network
- How Data is transmitted over a Routed Network
- Understanding Encapsulation & De-Encapsulation of Data in a Network

Cisco Device Basics

- Switch & Router Hardware Architecture
- Managing a Cisco Device via Console, Aux & Telnet
- IOS Basics
- Enhanced features of IOS CLI
- CDP
- Common Errors & Remedies

Switching

- Operational Principles of Switch
- The CAM table
- Basic Switching Commands
- Port Security
- VLAN & VTP
- Trunking & DTP
- STP & RSTP
- InterVlan Routing
- Troubleshooting Switching Issues

Routing

- Router Basics & Management
- Router Boot Sequence & Initial Setup
- Basics of Routing
- Administrative Distance, Autonomous System
- Static Routing – Default Route & Backup Route
- Dynamic Routing Algorithms
 - EIGRP
 - OSPF
 - Troubleshooting Routing Issues

First Hop Redundancy Protocols

- HSRP
- VRRP
- GLBP

Network Security

- ACL
 - Standard ACL
 - Extended ACL
 - Named ACL
- Device Hardening
- Firewall
- VPN

NAT

- Purpose of Network Address Translation
- Static NAT
- Dynamic NAT
- NAT with Port Address Translation (PAT)
- Troubleshooting NAT

WAN

- Point to Point Leased Line Dedicated Networks
- Packet Switched Frame Relay Networks
- PPPoE
- Troubleshooting WAN Networks

IPv6

- IPv6 Configuration Basics
- Static Routing
- Enabling EIGRP for IPv6
- Enabling OSPF for IPv6
- Dual Stack operation with IPv4

Managing the Cisco Network

- SNMP
- Syslog
- DHCP
- Netflow
- NTP
- IOS Backup, Upgrade, License Management
- Password Recovery



www.rjpinfotek.com

- rjpinfotek.blogspot.in
- [Twitter.com/rjpinfotek](https://twitter.com/rjpinfotek)
- [Facebook.com/rjpinfotek](https://facebook.com/rjpinfotek)
- Youtube.....