Cisco Certified Network Associate Routing & Switching (CCNA)

Lecture 1

1. What is networking?
2. Bandwidth - Speed/Capacity
3. LAN, MAN, WAN – With characteristics
4. Real time & best effort services
5. QUE & QOS
6. Converged network architecture
7. Link types
8. Voice communication technology
9. Ethernet technology
10. Technology – Ethernet and Serial

Lecture 2 & 3

1. CSMA/CD
2. IP Communication over ethernet - Unicast, Multicast, Broadcast
3. Frame
4. ARP/ICMP/PING
5. Auto negotiation, Speed, and Duplex
6. IP Flow
7. Networking devices – Switch and router & operations
8. OSI Layers

Lecture 4

1. IP Addressing V4
2. Subnetting
3. Practical – IOS introduction & basic commands

Lecture 5 & 6

1. Routing
2. Static routing
3. Floating static route, etc.
4. Default route
5. AD values
6. Routing Protocols
7. Distance vector
8. Link state & it's operation
9. Hybrid routing protocols
10. Classful routing protocols
11. EIGRP & OSPF

Lecture 7

1. Access Control List
   1.1. Standard
   1.2. Extended
2. Network Address Translation
3. NAT implementation consideration
4. NAT Function
5. Static NAT
6. Dynamic NAT
7. IPv6
8. EUI 64
9. Link Local Address
10. Configuration
11. IPv4 to IPv6 Transition
12. Dual stack

Lecture 8

1. Switching
2. Loop
3. Broadcast storm
4. Spanning Tree Protocol
5. Rapid STP
6. Virtual LAN
7. Why VLAN
8. Configuration
9. ISL

10. Dot1q
11. L2 & L3 Switches
12. DTP
13. VTP
- 13.1. VTP Domain
- 13.2. VTP Modes
- 13.3. VTP Pruning
- 13.4. Inter VLAN routing/ Router on stick

Lecture 9 & 10

1. SNMP
2. Traceroute or DHCP or HSRP
3. CCNP Route, Switch or MPLS Glimpse
4. On Job Training, Doubts, Extra Practical
5. Career Guidance

Course Mentor	**:**	**Saidas Jagtap - 8451982229**
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Duration	**:**	**40 hours (Saturdays and Sundays)**