CCNA (200-301) Course Outline:

SL	Name of Modules	No. of Classes	Hours
1	1. Introduction of Networking 2. Network Basic (LAN/MAN/WAN) Theory	1	2
2	1. Network Topology Theory 2. Network Devices Details Theory	1	2
3	1. Connection Mode, Type and media Theory 2. Router Introduction Theory	1	2
4	1. Router Feature Theory 2. Network Protocols & Port Theory 3. Gateway Theory	1	2
5	1. Domains (Collision/Broadcast) Theory 2. Cable Description (STP/UTP/Optical Fiber) & Configuration	1	2
6	1. OSI Model Theory 2. TCP/IP Model Theory	1	2
7	1. OSI Model Encapsulation Process 2. How ARP Protocol work in LAN/MAN/WAN (Details)	1	2
8	1. IPv4 Address: IPv4 Construction, Classes, Differences Theory	1	2
9	1. Subnetting CIDR (Subnet Mask, WildMask, Prefix)	1	2
10	1. Subnetting (VLSM)	1	2
11	1. IPv4 Summarization, IPv4 Supper netting, Network Identification Process	1	2
12	1. Router Basic Details 2. Router Basic Configuration 3. Routing Table	1	2
13	1. Network Route Details 2. Static Routing 3. Default Routing	1	2
14	1. DHCP Server & DHCP Relay Agent Configuration 2. Remote Access Configuration (Telnet/SSH)	1	2
15	1. Dynamic Routing Protocols (IGP & EGP) 2. Difference between Major Dynamic Routing Protocols	1	2
16	1. OSPF Configuration (Theory & Practical) 2. OSPF Virtual Link Configuration	1	2
17	1. Standard ACL Configuration 2. Extended ACL Configuration	1	2
18	1. Switch Basic (STP/RSTP) 2. Switch Configuration	1	2
19	1. VLAN Configuration 2. Inter-VLAN Configuration	1	2

20	1. Switch Load Balancing & Fail Over (Ether Channel) Configuration 2. Layer 2 Security	1	2
21	1. NAT Configuration 2. PAT Configuration	1	2
22	VPN Configuration	1	2
23	1. Router Administrative Password Break 2. NTP Configuration 3. Backup & Recovery Configuration	1	2
24	1. WAN Authentication (HDLC, PPP, PAP & CHAP) Configuration 2. PPPoE Server and PPPoE Client Configuration	1	2
25	1. IPv6 Details Theory	1	2
26	1. OSPFv3 configuration with IPV6	1	2
27	1. WLAN Theory & Configuration 2. Router Fail Over and Load Balancing Configuration	1	2
28	1. IP Telephony System (VoIP)	1	2
29	**Network Automation & Programmability:**		
30	1. GNS3 Lab Setup for Network Automation 2. Python 3 Basic 3. Full Project Network Automation using Python 3	3	6