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Implementing and Administering Cisco Solutions (CCNA) 200-301 V1.0

Course Content for CCNA

- 1) Identify the components of a computer network and describe their basic characteristics
- 2) Understand the model of host-to-host communication
- 3) Describe the features and functions of the Cisco Internetwork Operating System (IOS®) software
- 4) Describe LANs and the role of switches within LANs
- 5) Describe Ethernet as the network access layer of TCP/IP and describe the operation of switches
- 6) Install a switch and perform the initial configuration
- 7) Describe the TCP/IP Internet layer, IPv4, its addressing scheme, and subnetting
- 8) Describe the TCP/IP Transport layer and Application layer
- 9) Explore functions of routing
- 10) Implement basic configuration on a Cisco router
- 11) Explain host-to-host communications across switches and routers
- 12) Identify and resolve common switched network issues and common problems associated with IPv4 addressing
- 13) Describe IPv6 main features and addresses, and configure and verify basic IPv6 connectivity
- 14) Describe the operation, benefits, and limitations of static routing
- 15) Describe, implement, and verify Virtual Local Area Networks (VLANs) and trunks
- 16) Describe the application and configuration of inter-VLAN routing
- 17) Explain the basics of dynamic routing protocols and describe components and terms of Open Shortest Path First (OSPF)
- 18) Explain how Spanning Tree Protocol (STP) and Rapid Spanning Tree Protocol (RSTP) work
- 19) Configure link aggregation using EtherChannel
- 20) Describe the purpose of Layer 3 redundancy protocols

- 21) Describe basic WAN and VPN concepts
- 22) Describe the operation of Access Control Lists (ACLs) and their applications in the network
- 23) Configure Internet access using Dynamic Host Configuration Protocol (DHCP) clients and explain and configure Network Address Translation (NAT) on Cisco routers
- 24) Describe basic Quality of Service (QoS) concepts
- 25) Describe the concepts of wireless networks, which types of wireless networks can be built, and how to use Wireless LAN Controllers (WLCs)
- 26) Describe network and device architectures and introduce virtualization
- 27) Introduce the concept of network programmability and Software-Defined Networking (SDN) and describe smart network management solutions such as Cisco DNA Center™, Software-Defined Access (SD-Access), and Software-Defined Wide Area Network (SD-WAN)
- 28) Configure basic IOS system monitoring tools
- 29) Describe the management of Cisco devices
- 30) Describe the current security threat landscape
- 31) Describe threat defense technologies
- 32) Implement a basic security configuration of the device management plane
- 33) Implement basic steps to harden network devices

Special Notes and Classes for Project help:

- 1) Special classes taken by the Highly Experienced Software Professionals of e.Soft.
- 2) Gives Technical and HR Interview tips of the students and also take a Mock interview at the end of the Project.
- 3) Every Saturday we take a feedback of the Students regarding Project Status.