

Complete Cisco CCENT Skill Set (Topics)	CCENT	CCT	Matching Cisco CCT Skill Set (Topics)
Describe the operation of data networks			
Describe the purpose and functions of various network devices	1	1	Describe in general terms the basic functionality and key differences for the following hardware: LAN Switch, Router, Modem, Wireless Access Points
Select the components required to meet a given network specification	1		
Use the OSI and TCP/IP models and their associated protocols to explain how data flows in a network	1	1	TCP/IP Stack versus the OSI Model
Describe common networking applications including web applications	1		
Describe the purpose and basic operation of the protocols in the OSI and TCP models	1	1	TCP/IP Stack versus the OSI Model
Describe the impact of applications (Voice Over IP and Video Over IP) on a network	1		
Interpret network diagrams	1		
Determine the path between two hosts across a network	1	1	Path Determination
Describe the components required for network and Internet communications	1	1	LAN and WAN components
Identify and correct common network problems at Layers 1, 2, 3, and 7 using a layered model approach	1		
Differentiate between LAN/WAN operation and features	1	1	Differentiate between these layer 2 technologies: Ethernet, Fast Ethernet, Gigabit Ethernet, Serial, ATM, ISDN, DSL, Optical, etc
Implement a small switched network			
Select the appropriate media, cables, ports, and connectors to connect switches to other network devices and hosts	1	1	Examining LAN cabling
Explain the technology and media access control method for Ethernet technologies	1	1	Examining LAN cabling
Explain network segmentation and basic traffic management concepts	1		Extending a LAN with a switch or router
Explain the operation of Cisco switches and basic switching concepts	1	1	Extending a LAN with a switch
Perform, save, and verify initial switch configuration tasks, including remote access management	1	1	Managing IOS configurations using different connections
Verify network status and switch operation using basic utilities, including ping, traceroute, Telnet, SSH, arp, and ipconfig, SHOW & DEBUG commands	1	1	Know how to use and interpret the following commands: — show version — show flash: — show slot x: — show running-config — show startup-config — show ip interface brief — ping — copy startup-config running-config / copy running-config startup-config — enable — show interface x — show diag
Implement and verify basic security for a switch (port security, deactivate ports)	1		
Identify, prescribe, and resolve common switched network media issues, configuration issues, autonegotiation, and switch hardware failures	1	1	Examining common network problem at Layer 1 and 2
Implement an IP addressing scheme and IP services to meet network requirements for a small branch office			
Describe the need and role of addressing in a network and create and apply an addressing scheme to a network	1	1	Understanding IP addressing and subnets
Assign and verify valid IP addresses to hosts, servers, and networking devices in a LAN environment	1	1	Describe what an IP address and subnet is
Explain the basic uses and operation of NAT in a small network connecting to one ISP	1		
Describe and verify DNS operation	1		
Describe the operation and benefits of using private and public IP addressing	1		
Enable NAT for a small network with a single ISP and connection using SDM and verify operation using CLI and ping	1		
Configure, verify and troubleshoot DHCP and DNS operation on a router, including CLI/SDM	1		
Implement static and dynamic addressing services for hosts in a LAN environment	1		
Identify and correct IP addressing issues	1		
Implement a small routed network			
Describe basic routing concepts, including packet forwarding and router lookup process	1	1	Extending a LAN with a router
Describe the operation of Cisco routers, including router bootup process, POST, and router components	1	1	Exploring the Cisco device boot-up process
Select the appropriate media, cables, ports, and connectors to connect routers to other network devices and hosts	1	1	Identify the following cabling: — Ethernet (for example, cross-over, straight , and so on) — RJ-11 — Fiber (for example, SC, ST, FC) — BNC — Serial (for example, RJ-45, RS-232, V.35, Smart Serial, and so on) — Power (AC and DC) — Cisco console cable (rollover cable)
Configure, verify, and troubleshoot RIPv2	1		
Access and utilize the router CLI to set basic parameters	1	1	Describe the different operating modes for Cisco software: — User EXEC Mode — Privileged EXEC Mode — Global Configuration Mode — ROM Monitor Mode or rommon
Connect, configure, and verify operation status of a device interface	1	1	Understanding the Cisco Device Interface status
Verify device configuration and network connectivity using ping, traceroute, telnet, SSH or other utilities	1	1	Managing Cisco IOS Configurations using different connections
Perform and verify routing configuration tasks for a static or default route given specific routing requirements	1		
Manage IOS Configuration files, including save, edit, upgrade, and restore	1	1	Managing Cisco IOS Configurations using different connections
Manage Cisco IOS Images	1	1	Managing Cisco IOS Images
Implement password and physical security	1		
Verify network status and router operation using basic utilities, including ping, traceroute, telnet, SSH, arp, ipconfig, and SHOW & DEBUG commands	1	1	Using show, arp, ping, telnet, SSH, and ipconfig commands
Explain and select the appropriate administrative tasks required for a WLAN			
Describe standards associated with wireless media, including IEEE Wi-Fi Alliance, and ITU/ETSI	1		
Identify and describe the purpose of the components in a small wireless network, including SSID, BSS, and ESS	1	1	Wireless components and topology
Identify the basic parameters to configure on a wireless network to ensure that devices connect to the correct access point	1		
Compare and contrast wireless security features and capabilities of WPA security, including open, WEP, and WPA-1/2	1		
Identify common issues with implementing wireless networks	1		
Identify security threats to a network and describe general methods to mitigate those threats			
Explain today's increasing network security threats and the need to implement a comprehensive security policy to mitigate the threats	1		
Explain general methods to mitigate common security threats to network devices, hosts, and applications	1		
Describe the functions of common security appliances and applications	1		
Describe security recommended practices, including initial steps to secure network devices	1		
Implement and verify WAN links			
Describe different methods for connecting to a WAN	1	1	Differentiate between these Layer 2 technologies: Ethernet, Fast Ethernet, Gigabit Ethernet, Serial, ATM, ISDN, DSL, Optical, and so on
Configure and verify a basic WAN serial connection	1	1	Examining WAN Connectivity