



CISCO 200-301

Cisco CCNA Certification Questions & Answers

Exam Summary – Syllabus – Questions

200-301

[Cisco Certified Network Associate](#)

90-110 Questions Exam – Variable (750-850 / 1000 Approx.) Cut Score – Duration of 120 minutes

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Know Your 200-301 Certification Well:

The 200-301 is best suitable for candidates who want to gain knowledge in the Cisco Associate. Before you start your 200-301 preparation you may struggle to get all the crucial CCNA materials like 200-301 syllabus, sample questions, study guide.

But don't worry the 200-301 PDF is here to help you prepare in a stress free manner.

The PDF is a combination of all your queries like-

- What is in the 200-301 syllabus?
- How many questions are there in the 200-301 exam?
- Which Practice test would help me to pass the 200-301 exam at the first attempt?

Passing the 200-301 exam makes you Cisco Certified Network Associate. Having the CCNA certification opens multiple opportunities for you. You can grab a new job, get a higher salary or simply get recognition within your current organization.

Cisco 200-301 CCNA Certification Details:

Exam Name	Implementing and Administering Cisco Solutions
Exam Number	200-301 CCNA
Exam Price	\$300 USD
Duration	120 minutes
Number of Questions	90-110
Passing Score	Variable (750-850 / 1000 Approx.)
Recommended Training	Implementing and Administering Cisco Solutions (CCNA)
Exam Registration	PEARSON VUE
Sample Questions	Cisco 200-301 Sample Questions
Practice Exam	Cisco Certified Network Associate Practice Test

200-301 Syllabus:

Section	Weight	Objectives
Network Fundamentals	20%	<ol style="list-style-type: none"> 1. Explain the role and function of network components <ul style="list-style-type: none"> • Routers • L2 and L3 switches • Next-generation firewalls and IPS • Access points • Controllers (Cisco DNA Center and WLC) • Endpoints • Servers 2. Describe characteristics of network topology architectures <ul style="list-style-type: none"> • 2 tier • 3 tier • Spine-leaf • WAN • Small office/home office (SOHO) • On-premises and cloud 3. Compare physical interface and cabling types <ul style="list-style-type: none"> • Single-mode fiber, multimode fiber, copper • Connections (Ethernet shared media and point-to-point) • Concepts of PoE 4. Identify interface and cable issues (collisions, errors, mismatch duplex, and/or speed) 5. Compare TCP to UDP 6. Configure and verify IPv4 addressing and subnetting 7. Describe the need for private IPv4 addressing 8. Configure and verify IPv6 addressing and prefix 9. Compare IPv6 address types <ul style="list-style-type: none"> • Global unicast • Unique local • Link local • Anycast • Multicast • Modified EUI 64

Section	Weight	Objectives
		<p>10. Verify IP parameters for Client OS (Windows, Mac OS, Linux)</p> <p>11. Describe wireless principles</p> <ul style="list-style-type: none">• Nonoverlapping Wi-Fi channels• SSID• RF• Encryption <p>12. Explain virtualization fundamentals (virtual machines)</p> <p>13. Describe switching concepts</p> <ul style="list-style-type: none">• MAC learning and aging• Frame switching• Frame flooding• MAC address table

Section	Weight	Objectives
Network Access	20%	1. Configure and verify VLANs (normal range) spanning multiple switches <ul style="list-style-type: none"> • Access ports (data and voice) • Default VLAN • Connectivity 2. Configure and verify interswitch connectivity <ul style="list-style-type: none"> • Trunk ports • 802.1Q • Native VLAN 3. Configure and verify Layer 2 discovery protocols (Cisco Discovery Protocol and LLDP) 4. Configure and verify (Layer 2/Layer 3) EtherChannel (LACP) 5. Describe the need for and basic operations of Rapid PVST+ Spanning Tree Protocol and identify basic operations <ul style="list-style-type: none"> • Root port, root bridge (primary/secondary), and other port names • Port states (forwarding/blocking) • PortFast benefits 6. Compare Cisco Wireless Architectures and AP modes 7. Describe physical infrastructure connections of WLAN components (AP, WLC, access/trunk ports, and LAG) 8. Describe AP and WLC management access connections (Telnet, SSH, HTTP, HTTPS, console, and TACACS+/RADIUS) 9. Configure the components of a wireless LAN access for client connectivity using GUI only such as WLAN creation, security settings, QoS profiles, and advanced WLAN settings

Section	Weight	Objectives
IP Connectivity	25%	1. Interpret the components of routing table <ul style="list-style-type: none"> • Routing protocol code • Prefix • Network mask • Next hop • Administrative distance • Metric • Gateway of last resort 2. Determine how a router makes a forwarding decision by default <ul style="list-style-type: none"> • Longest match • Administrative distance • Routing protocol metric 3. Configure and verify IPv4 and IPv6 static routing <ul style="list-style-type: none"> • Default route • Network route • Host route • Floating static 4. Configure and verify single area OSPFv2 <ul style="list-style-type: none"> • Neighbor adjacencies • Point-to-point • Broadcast (DR/BDR selection) • Router ID 5. Describe the purpose of first hop redundancy protocol
IP Services	10%	1. Configure and verify inside source NAT using static and pools 2. Configure and verify NTP operating in a client and server mode 3. Explain the role of DHCP and DNS within the network 4. Explain the function of SNMP in network operations 5. Describe the use of syslog features including facilities and levels 6. Configure and verify DHCP client and relay 7. Explain the forwarding per-hop behavior (PHB) for QoS such as classification, marking, queuing, congestion, policing, shaping 8. Configure network devices for remote access using SSH

Section	Weight	Objectives
		9. Describe the capabilities and function of TFTP/FTP in the network
Security Fundamentals	15%	<ol style="list-style-type: none"> 1. Define key security concepts (threats, vulnerabilities, exploits, and mitigation techniques) 2. Describe security program elements (user awareness, training, and physical access control) 3. Configure device access control using local passwords 4. Describe security password policies elements, such as management, complexity, and password alternatives (multifactor authentication, certificates, and biometrics) 5. Describe remote access and site-to-site VPNs 6. Configure and verify access control lists 7. Configure Layer 2 security features (DHCP snooping, dynamic ARP inspection, and port security) 8. Differentiate authentication, authorization, and accounting concepts 9. Describe wireless security protocols (WPA, WPA2, and WPA3) 10. Configure WLAN using WPA2 PSK using the GUI
Automation and Programmability	10%	<ol style="list-style-type: none"> 1. Explain how automation impacts network management 2. Compare traditional networks with controller-based networking 3. Describe controller-based and software defined architectures (overlay, underlay, and fabric) <ul style="list-style-type: none"> • Separation of control plane and data plane • North-bound and south-bound APIs 4. Compare traditional campus device management with Cisco DNA Center enabled device management 5. Describe characteristics of REST-based APIs (CRUD, HTTP verbs, and data encoding) 6. Recognize the capabilities of configuration management mechanisms Puppet, Chef, and Ansible 7. Interpret JSON encoded data

Cisco 200-301 Sample Questions:

Question: 1

Before Class B network 172.16.0.0 is subnetted by a network engineer, what parts of the structure of the IP addresses in this network already exist, with a specific size?

(Choose two answers.)

- a. Network
- b. Subnet
- c. Host
- d. Broadcast

Answer: a, c

Question: 2

An enterprise moves away from manual configuration methods, making changes by editing centralized configuration files. Which answers list an issue solved by using a version control system with those centralized files?

(Choose two answers.)

- a. The ability to find which engineer changed the central configuration file on a date/time
- b. The ability to find the details of what changed in the configuration file over time
- c. The ability to use a template with per-device variables to create configurations
- d. The ability to recognize configuration drift in a device and notify the staff

Answer: a, b

Question: 3

Which of the following line subcommands tells a switch to wait until a show command's output has completed before displaying log messages on the screen?

- a. exec-timeout 0 0
- b. no ip domain-lookup
- c. logging synchronous
- d. history size 15

Answer: c

Question: 4

With static NAT, performing translation for inside addresses only, what causes NAT table entries to be created?

- a. The first packet from the inside network to the outside network
- b. The first packet from the outside network to the inside network
- c. Configuration using the ip nat inside source command
- d. Configuration using the ip nat outside source command

Answer: c**Question: 5**

Which of the following statements is true about classless IP addressing concepts?

- a. Uses a 128-bit IP address
- b. Applies only for Class A and B networks
- c. Separates IP addresses into network, subnet, and host parts
- d. Ignores Class A, B, and C network rules

Answer: d**Question: 6**

Eight virtual machines run on one physical server; the server has two physical Ethernet NICs. Which answer describes a method that allows all eight VMs to communicate?

- a. The VMs must share two IP addresses and coordinate to avoid using duplicate TCP or UDP ports.
- b. Each VM uses a virtual NIC that logically connects to a virtual switch.
- c. Each VM uses a virtual NIC that is mapped to a physical NIC.
- d. The hypervisor acts as an IP router using the NICs as routed IP interfaces.

Answer: b

Question: 7

A single-line ACL has been added to a router configuration using the command `ip access-list 1 permit 172.16.4.0 0.0.1.255`. The configuration also includes the `access-class 1` in command in VTY configuration mode.

Which answer accurately describes how the router uses ACL 1?

- a. Hosts in subnet 172.16.4.0/23 alone can telnet into the router.
- b. CLI users cannot telnet from the router to hosts in subnet 172.16.4.0/23 alone.
- c. Hosts in subnet 172.16.4.0/23 alone can log in but cannot reach enable mode of the router.
- d. The router will only forward packets with source addresses in subnet 172.16.4.0/23.

Answer: a

Question: 8

The Wi-Fi Alliance offers which of the following certifications for wireless devices that correctly implement security standards?

(Choose all that apply.)

- a. WEP
- b. WPA2
- c. 802.11
- d. AES

Answer: b

Question: 9

Router R15 has been a working part of a network that uses OSPFv2. An engineer then issues the `shutdown` command in OSPF configuration mode on R15. Which of the following occurs?

- a. R15 empties its IP routing table of all OSPF routes but keeps its LSDB intact.
- b. R15 empties its LSDB but keeps OSPF neighbor relationships active.
- c. R15 keeps OSPF neighbors open but does not accept new OSPF neighbors.
- d. R15 keeps all OSPF configuration but ceases all OSPF activities (routes, LSDB, neighbors).

Answer: d

Question: 10

What do you call data that includes the Layer 4 protocol header, and data given to Layer 4 by the upper layers, not including any headers and trailers from Layers 1 to 3?

(Choose two answers.)

- a) L3PDU
- b) Chunk
- c) Segment
- d) Packet
- e) Frame
- f) L4PDU

Answer: c, f

Study Guide to Crack Cisco CCNA 200-301 Exam:

- Getting details of the 200-301 syllabus, is the first step of a study plan. This pdf is going to be of ultimate help. Completion of the syllabus is must to pass the 200-301 exam.
- Making a schedule is vital. A structured method of preparation leads to success. A candidate must plan his schedule and follow it rigorously to attain success.
- Joining the Cisco provided training for 200-301 exam could be of much help. If there is specific training for the exam, you can discover it from the link above.
- Read from the 200-301 sample questions to gain your idea about the actual exam questions. In this PDF useful sample questions are provided to make your exam preparation easy.
- Practicing on 200-301 practice tests is must. Continuous practice will make you an expert in all syllabus areas.

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