

01	A	B	C	D	E
02	A	B	C	D	E
03	A	B	C	D	E
04	A	B	C	D	E
05	A	B	C	D	E
06	A	B	C	D	E
07	A	B	C	D	E
08	A	B	C	D	E
09	A	B	C	D	E
10	A	B	C	D	E
11	A	B	C	D	E
12	A	B	C	D	E
13	A	B	C	D	E

14	A	B	C	D	E
15	A	B	C	D	E
16	A	B	C	D	E
17	A	B	C	D	E
18	A	B	C	D	E
19	A	B	C	D	E
20	A	B	C	D	E
21	A	B	C	D	E
22	A	B	C	D	E
23	A	B	C	D	E
24	A	B	C	D	E
25	A	B	C	D	E
26	A	B	C	D	E

27	A	B	C	D	E
28	A	B	C	D	E
29	A	B	C	D	E
30	A	B	C	D	E
31	A	B	C	D	E
32	A	B	C	D	E
33	A	B	C	D	E
34	A	B	C	D	E
35	A	B	C	D	E
36	A	B	C	D	E
37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

Cisco Systems

200–301

CCNA

EDITION

Demo

QUESTIONS

9

ISSUED

August 12, 2026

Before you begin

What this is

9 practice questions for Cisco Systems 200-301, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, 200-301
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

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QUESTION 1 SINGLE CHOICE

A router receives a packet destined for 172.16.5.10. The routing table contains the following entries: - 172.16.0.0/16 via 10.1.1.1 - 172.16.5.0/24 via 10.2.2.2 - 172.16.5.0/28 via 10.3.3.3 - 0.0.0.0/0 via 10.4.4.4 Which route will the router use to forward the packet?

- ☐ A 172.16.0.0/16 via 10.1.1.1
- ☐ B 172.16.5.0/24 via 10.2.2.2
- ☒ C 172.16.5.0/28 via 10.3.3.3
- ☐ D 0.0.0.0/0 via 10.4.4.4

ANSWER C

WHY When multiple routes in a routing table match a destination, the router uses the longest prefix match rule to select the most specific route. The /28 route (172.16.5.0/28) provides the most specific match for the destination 172.16.5.10 and is therefore selected over the /24, /16, and default routes.

QUESTION 2 SINGLE CHOICE

Which IPv6 address type is automatically assigned to an interface and is used for communication only on the local network segment without being routable?

- ☐ A Global unicast address
- ☐ B Unique local address
- ☒ C Link-local address
- ☐ D Multicast address

ANSWER C

WHY IPv6 link-local addresses use the prefix FE80::/10 and are automatically configured on every IPv6-enabled interface. They are used for communication between devices on the same local link and are not routable beyond that segment. Global unicast addresses provide Internet reachability, unique local addresses are the IPv6 equivalent of private addresses and are routable within an organization, and multicast addresses are used for one-to-many communication.

QUESTION 3

SINGLE CHOICE

Which IEEE standard defines VLAN tagging for Ethernet trunk links?

- ☐ A 802.1D
- ☒ B 802.1Q
- ☐ C 802.1X
- ☐ D 802.3ad

ANSWER B

WHY IEEE 802.1Q is the standard that defines VLAN tagging on Ethernet trunk links. It inserts a 4-byte VLAN tag into the Ethernet frame header, allowing multiple VLANs to share a single physical link. IEEE 802.1D defines the original Spanning Tree Protocol, 802.1X defines port-based network access control, and 802.3ad (now 802.1AX) defines link aggregation.

QUESTION 4

SINGLE CHOICE

Which Spanning Tree Protocol is enabled by default on modern Cisco Catalyst switches?

- ☐ A STP (802.1D)
- ☐ B RSTP (802.1w)
- ☐ C PVST+
- ☒ D Rapid PVST+

ANSWER D

WHY Modern Cisco Catalyst switches run Rapid PVST+ (Rapid Per-VLAN Spanning Tree Plus) by default. This Cisco-proprietary protocol runs a separate instance of RSTP (802.1w) for each VLAN, providing faster convergence than the original 802.1D STP and per-VLAN load balancing across redundant links.

QUESTION 5 SINGLE CHOICE

What is the default OSPF hello interval on a broadcast network such as Ethernet?

- ☐ A 5 seconds
- ☒ B 10 seconds
- ☐ C 30 seconds
- ☐ D 40 seconds

ANSWER B

WHY The default OSPF hello interval is 10 seconds on broadcast and point-to-point networks, with a corresponding dead interval of 40 seconds (four times the hello interval). On NBMA and point-to-multipoint networks, the default hello interval is 30 seconds with a 120-second dead interval.

QUESTION 6 SINGLE CHOICE

Which First Hop Redundancy Protocol uses a virtual MAC address in the format 0000.0C07.ACxx, where xx is the hexadecimal group number?

- ☐ A VRRP
- ☒ B HSRP
- ☐ C GLBP
- ☐ D CARP

ANSWER B

WHY HSRP (Hot Standby Router Protocol) uses a virtual MAC address of 0000.0C07.ACxx, where xx is the HSRP group number in hexadecimal. VRRP uses 0000.5E00.01xx, and GLBP uses 0007.B400.xxyy, where yy distinguishes up to four routers in the GLBP group.

QUESTION 7 SINGLE CHOICE

Which NTP stratum value is assigned to a primary reference clock, such as an atomic clock or GPS receiver, that provides the most accurate time source?

- ☒ **A** 0
- ☐ **B** 1
- ☐ **C** 15
- ☐ **D** 16

ANSWER A

WHY NTP stratum 0 represents the highest-precision timekeeping devices (atomic clocks, GPS receivers, radio clocks) that are not directly on the network but are attached to NTP servers. NTP servers synchronized directly to a stratum 0 device operate at stratum 1, and each subsequent level of synchronization increases the stratum number. Stratum 16 indicates an unsynchronized device.

QUESTION 8 SINGLE CHOICE

An administrator needs to create an ACL that permits traffic from any host on the 192.168.10.0/24 subnet. Which wildcard mask should be configured in the ACL statement?

- ☒ **A** 0.0.0.255
- ☐ **B** 0.0.0.0
- ☐ **C** 255.255.255.0
- ☐ **D** 0.0.255.255

ANSWER A

WHY A wildcard mask is the bitwise inverse of a subnet mask. The /24 subnet mask 255.255.255.0 corresponds to a wildcard mask of 0.0.0.255, which means the first three octets must match exactly and the last octet can be any value. The wildcard 0.0.0.0 matches a single host, 255.255.255.0 is a subnet mask (not a wildcard), and 0.0.255.255 would match a /16.

QUESTION 9

MULTIPLE CHOICE

In an OSPF multi-area design, in which two area types does the Area Border Router (ABR) automatically inject a default summary route (0.0.0.0) into the area and block Type 5 external LSAs? (Choose two.)

- ☐ A Backbone area (area 0)
- ☐ B Standard area
- ☒ C Stub area
- ☒ D Totally stubby area
- ☐ E Not-So-Stubby Area (NSSA)

ANSWER C - D

WHY Stub areas block Type 5 external LSAs and rely on a default route injected by the ABR to reach external destinations. Totally stubby areas are a Cisco extension that additionally block Type 3 inter-area LSAs and inject only a default route. The backbone area carries all LSA types, standard areas also carry all types, and NSSAs use Type 7 LSAs to carry external routes and inject a default route only when explicitly configured with the default-information-originate command.