



# CISCO

## INTERVIEW QUESTIONS

Top Most Important CISCO Interview Questions & Answers



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**1. What is Subnetting?**

**Answer:**

- Breaking larger network into bunch of small network to reduce network traffic.

**2. What does the show ip protocol display?**

**Answer:**

- Routed protocols Configured in Router.
- The network address assigned on each interface.

**3. Expand of HDLC?**

**Answer:**

- High-level data link controller.

**4. What is Bandwidth?**

**Answer:**

- Maximum Amount of data transmitted over an Internet.
- Calculated in megabits per second (Mbps)

**5. What are types of password used in CISCO routers?**

**Answer:**

**Five types of password**

- Console Password.
- Text Password.
- Secret Password.
- Auxiliary.
- VTY Password. ( Virtual Tele Type) (Telnet)

**6. What is the size of IPv4 and IPv6?**

**Answer:**

- IPv4 -32 bits.
- IPv6 -128 bits.



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**7.What is the purpose of DHCP?**

**Answer:**

- Assigning IP Address automatically

**8.Can we assign IP address for VLAN?**

**Answer:**

- Yes

**9.Mention the ranges for the private IPs?**

**Answer:**

- Class A : 10.0.0.0-10.255.255.255
- Class B : 172.16.0.0-172.31.255.255
- Class C :192.168.0.0-192.168.255.255

**10.How many ways to access the router?**

**Answer:**

- Console.
- Aux.
- Telnet.
- SSH (Secure Shell)

**11.Mention the metric of Eigrp protocol?**

**Answer:**

- Bandwidth.
- Load.
- Delay.
- Reliability.
- MTU (Maximum Transmission Unit).

**12.Mention the clock rate?**

**Answer:**

- It sets how many bits can sent over given time can only configured in DCE end.



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**13. How to reset router IOS password?**

**Answer:**

- Switch off & on Press Ctrl + Break key enter into Rommon mode.

**14. What are the RIP, EIGRP, OSPF and BGP port number?**

**Answer:**

- RIP – 520
- EIGRP – 88 (Protocol number)
- OSPF – 89
- BGP – 179

**15. What will be the netmask for /24?**

**Answer:**

- 255.255.255.0

**16. Expand BGP**

**Answer:**

- Border Gateway Protocol

**17. Which layer hub work ?**

**Answer:**

- Physical Layer

**18. What is a load balancer?**

**Answer:**

- Distributing traffic across different devices.

**19. What is the purpose of HTTP protocol?**

**Answer:**

- HTTP is a method used to transfer or convey information on the world wide web. Its original purpose was to provide a way to publish and retrieve HTML pages
- To communicate between web browser & web servers.

**20. What is AD of EIGRP?**

**Answer:**

- Internal AD = 90
- External AD = 170



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**21. What is Telnet?**

**Answer:**

- Network protocol used to virtually access computers, servers, routers.
- Port number 23.

**22. What is a gateway?**

**Answer:**

- A gateway IP refers to a device on a network which sends local network traffic to other networks.

**23. What is a Point-to-Point link?**

**Answer:**

- Point-to-Point link based systems are dedicated connections established between two networking systems.

**24. What is VPN?**

**Answer:**

- VPN stands for "Virtual Private Network" -a service that protects your internet connection and privacy online. It creates tunnel for your data, protects your online identity by hiding your IP address.

**25. What's the benefit of subnetting?**

**Answer:**

- Reduced network traffic
- Optimizes network performance

**26. What is Routing?**

**Answer:**

- Communication between two different networks.

**27. What is a Protocol?**

**Answer:**

- Set of rules to transfer data.

**28. What is Redundancy?**

**Answer:**

- Communication pathway that has additional links to connect for all device in case one link goes down.



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**29.What is the scope of class C address?**

**Answer:**

- 192.0.0.0 to 223.255.255.255.

**30.What is PoE (Power over Ethernet)?**

**Answer:**

- PoE is a standard that allows Ethernet cables to transmit data and power supply simultaneously using a single network cable.

**31. What is ping?**

**Answer:**

- PING stands for Packet Internet Groper. It is a computer network tool which is used to test whether a particular host is reachable across an IP address or not.

**32.What is difference between TCP and UDP protocols?**

**Answer:**

- TCP is reliable protocol and UDP is unreliable protocol. In general TCP give reliability and acknowledgement for packet delivered while UDP does not provide acknowledgement.

**33.How many layers we have in OSI model?**

**Answer:**

- 1.Physical
- 2.Data link
- 3.Network
- 4.Transport
- 5.Session
- 6.Presentation
- 7.Application

**34.Which router command is used to display RAM contents?**

**Answer:**

- show running-config

**35.What is collision domain?**

**Answer:**

- Collision domain means we use Network in which data transmission and receiving happening at same time. Packets get corrupted. This technology mainly used in Hub devices.



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**36.Can we communicate between two vlan?**

**Answer:**

- Yes with the help of Router.

**37.What is the purpose to create separate Vlan?**

**Answer:**

- To separate single broadcast domain into many different broadcast domain.

**38.What is VTP?**

**Answer:**

- VTP helps to create vlan on one switch and it is synchronize with other switches in the network .

**39.What are VTP modes?**

**Answer:**

- Server.
- Transparent.
- Client.

**40.What do you mean by STP ?**

**Answer:**

- Spanning tree protocol is used to avoid loop in switching environment. By this mechanism we block port to avoid loop in switches.

**41.What are the status of port we have in STP?**

**Answer:**

- Blocking.
- Listening.
- Learning.
- Forwarding.

**42.How to elect Root bridge in STP?**

**Answer:**

- STP elect Root bridge based on Priority and mac address. Lower the priority wins the race. If we have same priority configured then we have other option as MAC address.



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**43. What is designated and root port?**

**Answer:**

- All port on Root bridge is called Designated port. Which send BPDU from Root bridge. While port directly connected to other switch is root port. It Receive BPDU sent by Root bridge.

**44. what is multicast ip for OSPF**

**Answer:**

- 224.0.0.5 and 224.0.0.6

**45. What is unicast , multicast and broadcast ?**

**Answer:**

- Unicast - One device to one device.
- Multicast - One device to group of devices
- Broadcast - One device to all devices

**46. How to configure telnet password in router?**

**Answer:**

- #Lin VTY 0 4
- #login
- #password \*\*\*\*

**47. What does ARP stand for?**

**Answer:**

- Address Resolution Protocol.

**48. What is the command to see only connected routes in a router's routing table?**

**Answer:**

- Show ip route.

**49. What are the two types of NAT?**

**Answer:**

- Static NAT, Dynamic NAT.

**50. What are the different types of IPv6 addresses?**

**Answer:**

- Unique local
- Link local
- Global unicast
- Unspecified
- Loopback
- Multicast
- Tunneling



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**51. What are the different types of memory on a Cisco device?**

**Answer:**

- RAM, ROM, Flash and NVRAM.

**52. Where is the startup config file stored on a Cisco device?**

**Answer:**

- NVRAM. (Non Volatile RAM)

**53. What is the command to view the contents of the flash memory?**

**Answer:**

- Show flash.

**54. How do you check the IOS version running on a Cisco device?**

**Answer:**

- Show version.

**55. How many bits long is a MAC address?**

**Answer:**

- 48.

**56. How do you find the MAC address of a computer?**

**Answer:**

- ipconfig /all
- getmac.

**57. What does "C" code in a routing table?**

**Answer:**

- Directly connected networks.

**58. What is the length of an IPv4 header?**

**Answer:**

- 20 bytes.

**59. Which type of cable is used to connect 2 computers together to transfer data?**

**Answer:**

- Crossover cable.

**60. What is the APIPA range? (Automatic Private IP Addressing)**

**Answer:**

- 169.254.0.0 to 169.254.255.255

**61. What are the port numbers the DHCP server uses?**

**Answer:**

- UDP 67 and 68.

**62. What is the prefix of an IPv6 link-local address?**

**Answer:**

- FE80::/10

**63. What are the types of Ethernet cables?**

**Answer:**

- Straight-through
- Cross over.
- Roll over

**64. What is the main difference between switch and router?**

**Answer:**

- Switch used to connect multiple devices and networks to expand the LAN.
- Router used to connect different networks.
- Switch sends Frames and Router sends Packets.

**65. What is Single broadcast?**

**Answer:**

- Single broadcast is the IP address which has same subnets.
- VLAN is single broadcast.

**66. What is Subnet Mask?**

**Answer:**

- A subnet mask is a 32 bit value, which shows network id portion and host id portion of ip address.

**67. What is VLAN?**

**Answer:**

- VLAN stands Virtual Local Area Network
- VLAN is a broadcast domain that is isolated in a computer network.

**68. What are the port number used for FTP, TELNET and SMTP?**

**Answer:**

- 21-FTP
- 23-TELNET
- 25-SMTP

**69. What is the default priority value for the switch in Spanning tree protocol?**

**Answer:**

- The default priority value for the switch is 32768.

**70. Which protocol is used in redundancy?**

**Answer:**

- The protocols used in Redundancy are HSRP, VRRP and GLBP.

**71. What is active and standby in HSRP?**

**Answer:**

- **Active:** The Router that owns the virtual IP and MAC address is in active. **Standby:** It is the backup for active router.

**72. What is AD value of Static,RIP,IGRP, EIGRP AND OSPF?**

**Answer:**

- 1-STATIC
- 120-RIP
- 100-IGRP
- 90-EIGRP INTERNAL
- 170-EIGRP EXTERNAL
- 110- OSPF

**73. What is Autonomous System?**

**Answer:**

- An autonomous system is collection of network under single administrative domain.

**74. What is CEF?**

**Answer:**

- Cisco Express Forwarding.

**75. What is the native VLAN ID by default on a CISCO switch?**

**Answer:**

- VLAN 1.



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**76. What are the different trunking protocols?**

**Answer:**

- Different trunking protocols are ISL and DOT1q.

**77. What is the Aging timer of the MAC address table?**

**Answer:**

- 300 seconds.

**78. What is the CISCO proprietary protocol for link aggregation?**

**Answer:**

- PAgP .

**79. What is the standard protocol for link aggregation?**

**Answer:**

- LACP.

**80. What is AAA?**

**Answer:**

- Authentication, Authorization and Accounting.
- AAA server is network server used for access control.
- Authentication - Identify user.
- Authorization - Implement Policies & permissions
- Accounting - Keeps track of time and data (logs and audit).

**81. What is the Loopback IP Address in IPv4 & IPv6 used for local testing purpose?**

**Answer:**

- 127.0.0.1 (IPv4)
- ::1 (IPv6)

**82. What are the types of Routes available?**

**Answer:**

- Static Route ,Dynamic Route, Default Route.



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**83. Expand the term EUI.**

**Answer:**

- **Extended Unique Identifier.**

**84. Expand the terms PAP and CHAP.**

**Answer:**

- **PAP stands for Password Authentication Protocol.**
- **CHAP stands for Challenge Handshake Authentication Protocol.**

**85. What are the ways to choose DR in OSPF?**

**Answer:**

- **Highest Priority.**
- **Highest Router ID.**

**86. What is 100 BASEFX?**

**Answer:**

- **It is the Fast Ethernet over Fiber optic cables. The cable uses two pairs of fiber to support more than 100 Mbps. This cable can support a speed up to 2 km.**

**87. What is the difference between public and private IP?**

**Answer:**

- **Public IP is used across the internet, while private IP is used within the local LAN.**
- **Public IP is provided by ISP , Private IP is assigned by admin**

**88. What is the purpose of Data Link Layer?**

**Answer:**

- **The data link layer is described in more detail with MAC address, frame detection, medium access, error checking.**

**89. How many types of switch port modes are there ?**

**Answer:**

**Answer:**

- **Access**
- **Trunk**
- **Dynamic Auto**
- **Dynamic Desirable**



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