Application Opened

[Main content](https://ng.cengage.com/static/nbreader/ui/apps/nbreader/fullbook.html?#header)

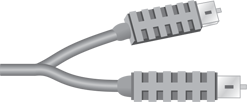
**Appendix**

**C**

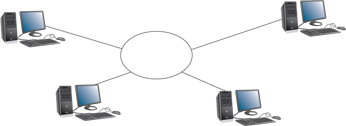
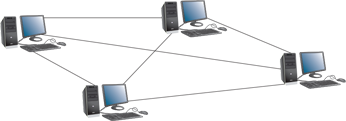
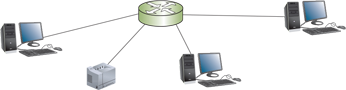
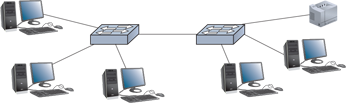
**CompTIA Network+ Practice Exam**

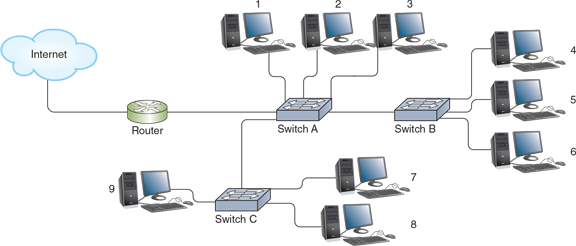
The following exam contains questions that are similar in content and format to the multiple-choice questions you will encounter on CompTIA’s Network+ N10-008 certification exam, released in 2021. This practice exam consists of 100 questions, all of which are multiple choice. Some questions have more than one correct answer. The number of questions from each domain reflects the weighting that CompTIA assigned to these domains in its exam objectives. To simulate taking the CompTIA Network+ certification exam, allow yourself 90 minutes to answer all the questions.

1. To ensure that your private network is always protected, you decide to install three redundant firewalls. Which of the following would allow you to assign the same IP address to all three?
   1. SMTP
   2. CARP
   3. SNMPv3
   4. IMAP
   5. NTP
2. What Ethernet standard could use the connector shown here?



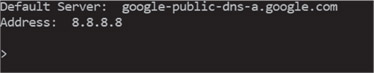
* 1. 1000BASE-LX
  2. 10GBASE-T
  3. 100BASE-TX
  4. 1000BASE-T
  5. 5GBASE-T

1. While troubleshooting a workstation connectivity problem, you enter the following command: ping 127.0.0.1. The response indicates the test failed. What can you determine about that workstation?
   1. Its network cable is faulty or not connected to the wall jack.
   2. Its TCP/IP stack is not installed properly.
   3. It has been prevented from transmitting data past the default gateway.
   4. Its DHCP settings are incorrect.
   5. Its DNS name server specification is incorrect.
2. You have been asked to help improve network performance on a store’s small office network. The network relies on two switches, two access points, and a router to connect its 18 employees to the Internet and other store locations. You decide to determine what type of traffic the network currently handles. In particular, you’re interested in the volume of unnecessary broadcast traffic that might be bogging down shared segments. Which of the following tools will help you identify the percentage of traffic made up of broadcasts?
   1. Port scanner
   2. OTDR
   3. Protocol analyzer
   4. Multimeter
   5. Cable tester
3. Which of the following standards describes a security technique, often used on wireless networks, in which a port is prevented from receiving traffic until the transmitter’s credentials are verified by an authentication server?
   1. EAPoL
   2. SSH
   3. RADIUS
   4. Kerberos
   5. CCMP
4. Which of the following ports would be used during a domain name lookup?
   1. 22
   2. 23
   3. 53
   4. 110
   5. 443
5. You are configuring a connection from a Windows server to a switch, and you want to make sure the connection doesn’t fail or become overwhelmed by heavy traffic. Which of the following techniques would help you achieve both aims?
   1. Multipathing
   2. CARP
   3. Clustering
   4. Trunking
   5. NIC teaming
6. As a network admin, you have decided to install additional physical security to the main office’s data room. Due to the sensitivity of the data held in this room, you decide it’s critical to ensure two-factor authentication before granting anyone access to the room. You already have a lock on the door. Which of the following physical security measures would provide 2FA?
   1. Smart card
   2. Fingerprint scanner
   3. Keychain fob
   4. Video surveillance
   5. Proximity card
7. You have installed and configured two virtual web servers and a virtual mail server on a physical server. What networking mode will you assign to each server’s vNIC to ensure that the virtual machines’ clients on the Internet can access the virtual machines?
   1. NAT
   2. Bridged
   3. Host-only
   4. Internal
   5. Grouped
8. At the beginning of the school year, students at your school must configure their computers and other devices to obtain trusted access to the student portion of the school’s network. What is this process called?
   1. Authenticating
   2. Remote wiping
   3. Associating
   4. Onboarding
   5. Social engineering
9. When using NAT, how does an IP gateway ensure that outgoing traffic can traverse public networks?
   1. It modifies each outgoing frame’s Type field to indicate that the transmission is destined for a public network.
   2. It assigns each outgoing packet a masked ID via the Options field.
   3. It replaces each outgoing packet’s Source address field with a public IP address.
   4. It interprets the contents of outgoing packets to ensure that they contain no client-identifying information.
   5. It modifies the frame length to create uniformly sized frames, called cells, which are required for public network transmission.
10. Which of these authentication techniques only encrypts the password when transmitting sign-in credentials?
    1. RADIUS
    2. TACACS+
    3. Kerberos
    4. Single sign-on
    5. Local authentication
11. You are a networking technician in a radiology clinic where physicians use the network to transmit and store patients’ diagnostic results. Shortly after a new wing, which contains X-ray and MRI (magnetic resonance imaging) machines, is added to the building, computers in that area begin having intermittent problems saving data to the file server. After you have gathered information, identified the symptoms, questioned users, and determined what has changed, what is your next step in troubleshooting this problem?
    1. Establish a plan of action to resolve the problem.
    2. Escalate the problem.
    3. Document findings, actions, and outcomes.
    4. Establish a theory of probable cause.
    5. Implement the solution.
12. The software on a firewall you recently installed on your network examines each incoming packet. It blocks or allows traffic based on a set of criteria—including source IP address, destination ports, and TCP flags—and it does not evaluate traffic in relation to other traffic. What type of system is this? *Choose two.*
    1. Host-based firewall
    2. Stateful firewall
    3. Stateless firewall
    4. Packet-filtering firewall
    5. Application layer firewall
13. Suppose you are creating six subnets on a network that leases a group of class C IPv4 addresses. What subnet mask must you specify in your clients’ configurations to maximize the number of host addresses available on each subnet?
    1. 255.255.255.6
    2. 255.255.255.128
    3. 255.255.255.192
    4. 255.255.255.224
    5. 255.255.255.0
14. What would the command route del default gw 192.168.5.1 eth1 accomplish on your Linux workstation?
    1. Delete the default gateway’s route to the host whose IP address is 192.168.5.1.
    2. Remove the assignment of IP address 192.168.5.1 from the eth1 interface.
    3. Remove the workstation’s route to the default gateway whose IP address is 192.168.5.1.
    4. Add a route from the workstation to the default gateway whose IP address is 192.168.5.1.
    5. Remove the designation of default gateway, but keep the route for the host whose IP address is 192.168.5.1.
15. From your laptop, you need to remote into a switch to make some configuration changes. Which transport layer protocol and TCP/IP port should you open in Windows Firewall to make this work using Telnet?
    1. UDP, port 23
    2. TCP, port 23
    3. UDP, port 22
    4. TCP, port 22
    5. UDP, port 21
16. Recently, your company’s WAN experienced a disabling DDoS attack. Which of the following devices could detect such an attack and prevent it from affecting your network in the future?
    1. A honeypot
    2. SIEM
    3. HIPS
    4. HIDS
    5. NIPS
17. Which of the following routing protocols offer fast convergence times and can be used on both core and edge routers? *Choose two*.
    1. RIPv2
    2. IS-IS
    3. OSPF
    4. BGP
    5. EIGRP
18. A friend calls you for help with his home office Internet connection. He is using an 802.11n wireless router connected to a DSL modem. The router’s private IP address is 192.168.1.1, and it has been assigned an Internet routable IP address of 76.83.124.35. Your friend cannot connect to any resources on the Internet using his new Windows workstation. You ask him to run the ipconfig command and read the results to you. He says his workstation’s IP address is 192.168.1.3, the subnet mask is 255.255.255.0, and the default gateway address is 192.168.1.10. What do you advise him to do next?
    1. Display his DNS information.
    2. Change his gateway address.
    3. Change his subnet mask.
    4. Try pinging the loopback address.
    5. Use the tracert command to contact the access point/router.
19. Your organization contracts with a cloud service provider to store some backup data. The company promises 99.999 percent uptime. If it lives up to its claims, what is the maximum number of minutes each year you can expect your data to be unavailable?
    1. Approximately 448 minutes
    2. Approximately 199 minutes
    3. Approximately 52 minutes
    4. Approximately 14 minutes
    5. Approximately 5 minutes
20. In a spine-and-leaf architecture, what type of switch is typically connected to a spine layer switch?
    1. Core switch
    2. Distribution switch
    3. Access switch
    4. Leaf switch
    5. Spine switch
21. What STP configuration ensures that a laptop connected to a switch cannot alter the STP paths on the network?
    1. BPDU filter
    2. BPDU guard
    3. Root bridge
    4. BID
    5. Designated port
22. What is the default subnet mask for the IP address 154.13.44.87?
    1. 255.255.255.255
    2. 255.255.255.0
    3. 255.255.0.0
    4. 255.0.0.0
    5. 0.0.0.0
23. Your CFO has approved installing new backbone cabling on your school’s campus. One of the buildings is particularly far away from the others, nearly a kilometer. Which Ethernet standard will reach the distant building without the use of a repeater?
    1. 10GBASE-T
    2. 1000BASE-LX
    3. 1000BASE-SX
    4. 10GBASE-SR
    5. 1000BASE-T
24. Which of the following is often used to secure data traveling over VPNs that use L2TP?
    1. OpenVPN
    2. GRE
    3. Kerberos
    4. SSH
    5. IPsec
25. You are a support technician working in a data closet in a remote office. You suspect that a connectivity problem is related to a broken RJ-45 plug on a patch cable that connects a switch to a patch panel. You need to replace that connector, but you forgot to bring an extra patch cable. You decide to install a new RJ-45 connector to replace the broken connector. Which tools must you have to successfully accomplish this task? *Choose two*.
    1. Punchdown tool
    2. Cable crimper
    3. Wire cutter
    4. Cable tester
    5. Multimeter
26. You have purchased an outdoor access point capable of exchanging data via the 802.11n or 802.11ac wireless standard. According to these standards, what is the maximum distance, in meters, from the access point that wireless clients can travel and still reliably exchange data with the access point if there are no obstacles between them?
    1. 20
    2. 70
    3. 100
    4. 250
    5. 450
27. Which of the following is a single sign-on authentication method?
    1. IPsec
    2. EAPoL
    3. SSL
    4. Kerberos
    5. RADIUS
28. Your organization has just ordered its first leased line to the Internet. Prior to that, your organization relied on a DSL connection. Which of the following features will your subscription provide that no type of DSL offers?
    1. Dedicated bandwidth
    2. Low price
    3. Symmetrical bandwidth
    4. Local loop
    5. Modem
29. Your friend’s printer isn’t printing the document she just sent it. In what order should you perform the listed steps?
    1. Follow the OSI model from bottom to top to check possible causes, send a new document to the printer, and determine if anything has changed on her network.
    2. Send a new document to the printer, follow the OSI model from bottom to top to check possible causes, and ask your friend when the problem started.
    3. Take notes on the outcome, send a new document to the printer, and determine if anything has changed on her network.
    4. Determine if anything has changed on her network, follow the OSI model from bottom to top to check possible causes, and send a new document to the printer.
    5. Determine if anything has changed on her network, take notes on the outcome, and send a new document to the printer.
30. A CEO fires her administrative assistant after the assistant was caught stealing company funds. Over the weekend, the administrative assistant hacks into the CEO’s private email account and steals some personal data. What type of attack did the former employee most likely use to accomplish this exploit?
    1. Brute force attack
    2. War driving
    3. Logic bomb
    4. Deauth attack
    5. On-path attack
31. What is the network ID for a class C network that contains the group of IP addresses from 194.73.44.10 through 194.73.44.254?
    1. 194.73.44.0
    2. 194.73.44.1
    3. 194.73.0.0
    4. 194.73.44.255
    5. 194.1.1.1
32. Your organization is reassessing its WAN connections to determine how much more bandwidth it will need to purchase in the next two years. As a network administrator, which of the following data can you share that will help management make the right decision?
    1. Wiring diagram
    2. Baseline
    3. Logical topology
    4. Syslog
    5. Change management documentation
33. You are creating a new Linux server as a virtual machine on your Windows workstation. Which of the following commands will tell you the IP address that is assigned to your virtual server?
    1. ipconfig /all at the Windows workstation’s command prompt
    2. ifconfig -a at the Linux server’s shell prompt
    3. iptables at the Linux server’s shell prompt
    4. ping at the Linux server’s shell prompt
    5. ipconfig /all at the Linux server’s shell prompt
34. Which of the following requirements provide 2FA? *Choose two*.
    1. Iris pattern and typing pattern
    2. Password and name of first elementary school
    3. Location in a secured closet
    4. Smart card and key fob
    5. Fingerprint and name of first elementary school
35. You are rearranging nodes on your Gigabit Ethernet network. Due to a necessarily hasty expansion, you have decided to supply power to a wireless router in a makeshift data room using PoE. Which of the following is the cheapest cabling you could use to connect this wireless router to the network’s backbone?
    1. RG-6
    2. RG-59
    3. Cat 5e
    4. SMF
    5. Cat 6
36. As you’re setting up APs in your client’s office space, you want to ensure that all work areas and the meeting room have adequate access to the network. What tool will give you the information you need?
    1. Geofencing
    2. Packet sniffer
    3. Bandwidth speed tester
    4. Wi-Fi analyzer
    5. Toner probe
37. Which of the following protocols encapsulates data for transmission over VPNs?
    1. SFTP
    2. L2TP
    3. VNC
    4. TCP
    5. TACACS+
38. Which of the following is a valid MAC address?
    1. C3:00:50:00:FF:FF
    2. 153.101.24.3
    3. ::9F53
    4. FE80::32:1CA3:B0E2
    5. D0:00:00:00
39. Which of the following services would be most important to disable on a Windows workstation? *Choose two.*
    1. SSH
    2. DHCP
    3. Telnet
    4. FTP
    5. RDP
40. It’s Friday night, and you have just settled in with some hot cocoa and popcorn to watch one of your favorite movies on Netflix. Five minutes into the movie, you realize you’re getting more stressed than relaxed, and then you realize the problem is that the movie keeps lagging, buffering, and skipping. What transmission flaw is probably the source of the problem?
    1. Crosstalk
    2. Jitter
    3. EMI
    4. Latency
    5. Attenuation
41. Where might you find publicized information about a backdoor to an application?
    1. CIA
    2. EAP
    3. SIEM
    4. CVE
    5. SSO
42. As you type in your PIN at the ATM, what risk can you protect yourself from by covering the keypad as you type?
    1. Piggybacking
    2. Phishing
    3. Tailgating
    4. Shoulder surfing
    5. Spoofing
43. After running the show interface command on a router, which field in the output indicates a damaged but minimally functioning cable?
    1. Giants
    2. BW
    3. CRC errors
    4. Runts
    5. Link state
44. You suspect that a machine on your network with the host name PRTSRV is issuing excessive broadcast traffic. What command can you use to determine this host’s IP address?
    1. netstat PRTSRV
    2. ipconfig PRTSRV
    3. ping -4 PRTSRV
    4. ifconfig -a PRTSRV
    5. ip address show PRTSRV
45. You’re installing a network management system and need to install software on various devices. What software must be installed on a managed device, such as a router?
    1. SIEM
    2. OID
    3. NMS
    4. Agent
    5. Syslog
46. You work for a small ISP. Several of your customers have called to complain about slow responses from a popular website. You suspect that network congestion is at fault. Which TCP/IP utility would help you determine where the congestion is occurring?
    1. ftp
    2. nslookup
    3. arp
    4. tracert
    5. telnet
47. You are a network administrator for a WAN that connects two regional insurance company offices—the main office and a branch office—to each other by a leased line. The main office is also connected to the Internet using a leased line. This leased line provides Internet access for both offices. To ensure that your private network is not compromised by unauthorized access through the Internet connection, you install a firewall between the main office and the Internet. Shortly thereafter, users in your branch office complain that they cannot access the file server in the main office, but users in the main office can still access the Internet. What configurations should you check? *Choose two*.
    1. Whether the firewall has been configured to run in promiscuous mode
    2. Whether the firewall is placed in the appropriate location on the network
    3. Whether the firewall has been configured to allow access from IP addresses in the branch office
    4. Whether the firewall has been configured to receive and transmit UDP-based packets
    5. Whether the firewall has been configured to allow Internet access over the main office’s leased line
48. On an IPv6 network, which of the following is a host computer’s loopback address?
    1. 1.0.0.1
    2. 127::1
    3. FE80::1
    4. ::1/128
    5. 127.0.0.1
49. In the process of troubleshooting an intermittent performance problem with your network’s Internet connection, you attempt to run a tracert test to [microsoft.com](http://microsoft.com/" \t "_blank). The tracert response displays the first 12 hops in the route but then presents several “Request timed out” messages in a row. What is the most likely reason for this result?
    1. Your network’s ISP is experiencing connectivity problems.
    2. Microsoft’s network is bounded by firewalls that do not accept incoming ICMP traffic.
    3. The Internet backbone is experiencing traffic congestion.
    4. Your client’s TCP/IP service limits the tracert command to a maximum of 12 hops.
    5. Your IP gateway failed while you were attempting the tracert test.
50. You are setting up a new Windows 10 client to connect with your LAN, which relies on DHCP. Which of the following must you do to ensure that the client obtains correct TCP/IP information via DHCP?
    1. Make certain the client’s computer name and host name are identical.
    2. Enter the client’s MAC address in the DHCP server’s ARP table.
    3. Enter the DHCP server address in the Windows TCP/IP configuration.
    4. Nothing; in Windows 10, the DHCP option is selected by default.
    5. Enter a default gateway address in the Windows TCP/IP configuration.
51. Due to popular demand from employees who need to roam from one floor of your office building to another, you are expanding your wireless network. You want to ensure that mobile users enjoy uninterrupted network connectivity without having to reconfigure their workstations’ wireless network connection settings as they travel throughout the office space. Which of the following variables must you configure on your new access points to match the settings on existing access points?
    1. Administrator password
    2. Scanning rate
    3. ESSID
    4. IP address
    5. RSSI
52. You have installed a protocol analyzer on your laptop and connected the laptop to a switch on your network’s backbone. You want to monitor all traffic on a specific VLAN. Which feature must you configure on the switch to make this work?
    1. Trunking
    2. Port mirroring
    3. Looping
    4. Spanning Tree Protocol
    5. Caching
53. Which of the following does *not* accurately describe TACACS+ in comparison to RADIUS?
    1. TACACS+ relies on TCP, not UDP, at the transport layer.
    2. TACACS+ is used to authenticate to a router or switch.
    3. TACACS+ encrypts all information transmitted for AAA rather than just the password.
    4. TACACS+ was developed for proprietary use on Cisco products.
    5. TACACS+ operates as a software application on a remote access server.
54. You are part of a team participating in a posture assessment of your company’s LAN. Which of the following tools or strategies will help you gain a broad understanding of your network’s security vulnerabilities?
    1. MIB
    2. War driving
    3. Nmap
    4. DHCP snooping
    5. CCMP
55. Which of the following devices can be used to separate broadcast domains? *Choose two.*
    1. Router
    2. Switch
    3. Access point
    4. Repeater
    5. Hub
56. About a year ago, you purchased and installed a new router at one of your company’s branch offices, and you have had nothing but problems with the router since. Today you called the vendor for the third time to have them send a technician to repair the router. They estimate the repair will be completed by the end of business tomorrow. In the meantime, you have decided that you would prefer to replace the router the next time it fails. What factor should you carefully investigate when shopping for a replacement, so you won’t face this same scenario with the next router?
    1. MTTR
    2. UPS
    3. MTBF
    4. SLA
    5. MIB
57. A 500-watt transmitted signal arrives at the receiver at 250 watts. What is the signal’s dB loss?
    1. 250 dB loss
    2. 3 dB loss
    3. 1000 dB loss
    4. 6 dB loss
    5. 1 dB loss
58. Which of the following figures reflects the type of physical topology most likely to be used on a 1000BASE-T network?
    1. 
    2. 
    3. 
    4. 
    5. 
59. Your study partner is trying to access the Internet on her laptop, and it’s not working. You offer to help, and you use her browser to try to go to [google.com](http://google.com/" \t "_blank). That doesn’t work. In a Command Prompt window, you ping [google.com](http://google.com/" \t "_blank), which doesn’t work either. You then ping 8.8.8.8, and it still doesn’t work. You try to ping the network’s gateway, and it fails. You ping your own computer, which is logged onto the same network, and it works. What is the most likely diagnosis of this problem?
    1. Exhausted DHCP scope
    2. Incorrect DNS server
    3. Incorrect gateway
    4. Duplicate IP address
    5. Incorrect subnet mask
60. You work for a small fashion design firm. Because of a video that recently went viral, your company has received national recognition. Within a few days, your web server crashes. What kind of attack most likely caused the crash?
    1. Phishing
    2. Friendly DoS
    3. Spoofing
    4. Ransomware
    5. Logic bomb
61. You have just installed Linux on an old laptop to bring it new life. Which of the following applications will provide the most protection for the computer when you connect it to the Internet?
    1. Defender
    2. Honeypot
    3. tcpdump
    4. iptables
    5. Wireshark
62. You are the network administrator for a large university whose network currently contains nearly 10,000 workstations, over 80 routers, 250 switches, and 500 printers. You are researching a proposal to upgrade the routers and switches on your network to primarily use multilayer switches instead. At the same time, you want to improve the management of your network devices. Which of the following protocols will help automate network management across all the new devices?
    1. TFTP
    2. SMTP
    3. NTP
    4. ICMP
    5. SNMP
63. Which of the following devices operate only at the physical layer of the OSI model? *Choose two*.
    1. Hub
    2. Switch
    3. Router
    4. Firewall
    5. Repeater
64. While making some configuration changes to a client’s network, you need to connect your laptop to a router’s console port. Which of the following connector types is most likely to be used for this purpose?
    1. RJ-11
    2. APC
    3. MT-RJ
    4. RJ-45
    5. F-connector
65. You have connected to your bank’s home page. Its URL begins with *https://*. Based on this information, what type of security can you assume the bank employs for clients receiving and transmitting data to and from its web server?
    1. Kerberos
    2. TLS
    3. IPsec
    4. L2TP
    5. Packet-filtering firewall
66. Which of the following routing protocols has the poorest convergence time?
    1. EIGRP
    2. RIP
    3. BGP
    4. OSPF
    5. IS-IS
67. You need to gather some information about the traffic being broadcast and received on a Linux workstation. Unfortunately, you don’t have time to install Wireshark. Which command can you use instead?
    1. tcpdump
    2. telnet
    3. traceroute
    4. dig
    5. nslookup
68. To provide redundancy, you have to set up three links from a critical server to two redundant switches, both of which operate on the same subnet. Two connections from the server go to one switch, and the third link connects the other switch to the server. The server is running Windows Server 2019. What feature should you configure on the server to make these redundant links work together for load balancing and failover protection?
    1. Port aggregation
    2. NIC teaming
    3. Flow control
    4. Server cluster
    5. Virtual IP address
69. A Windows workstation is configured to use DHCP, but it cannot find a DHCP server. You run ipconfig in PowerShell. Which of the following IP addresses is most likely reported by Windows?
    1. 129.0.0.1
    2. 255.255.255.0
    3. 192.168.0.1
    4. 169.254.1.120
    5. 172.16.2.18
70. Used side-by-side with Kerberos, what service does LDAP provide Active Directory?
    1. Accounting
    2. Encryption
    3. Auditing
    4. Authorization
    5. Authentication
71. In the following figure, if switch A suffers a failure, how will this failure affect nodes 1 through 3?



* 1. They will be unable to access the Internet or nodes 7 through 9.
  2. They will be unable to access the Internet or any other nodes on the LAN.
  3. They will only be unable to access the Internet.
  4. They will be unable to access nodes 4 through 9.
  5. Their connectivity will not be affected.

1. A file server on your network is running Ubuntu Server. You need to remote into it to make some configuration changes so that a new employee can access a group of files. The files are stored on an encrypted hard drive. Which of the following utilities will give you secure access to the server to make your reconfigurations?
   1. RDP
   2. SSH
   3. SSL
   4. SFTP
   5. Telnet
2. You want to add five VMs on a server to the Staff VLAN at your office and two VMs to the Sales VLAN. Which of the following must your host machine’s NIC support?
   1. CSMA/CD
   2. Channel bonding
   3. MIMO
   4. Trunking
   5. OSPF
3. A regional bank manager asks you to help with an urgent network problem. Because of a sudden and severe network performance decline, the manager worries that the bank’s network might be suffering a DoS attack. Viewing which of the following types of network documentation would probably give you the quickest insight into what’s causing this problem?
   1. Wiring diagram
   2. Firewall log
   3. Logical network diagram
   4. The main file server’s system log
   5. Physical network diagram
4. While troubleshooting a computer’s connection to the network, you enter a command at the Command Prompt and see the following output. Which command did you enter?



* 1. nslookup
  2. netstat
  3. arp -a
  4. tracert google.com
  5. ping 8.8.8.8

1. Which of the following commands lists active TCP/IP connections on both Windows and Linux computers?
   1. nslookup
   2. netstat
   3. hostname
   4. ipconfig
   5. route
2. On which of the following devices would you *not* change the default administrative username and password when adding each device to your network?
   1. IP security camera
   2. Router
   3. Programmable thermostat
   4. Unmanaged switch
   5. Printer
3. Which of the following transmission media is most resistant to interference?
   1. Twinaxial cable
   2. Fiber-optic cable
   3. STP cable
   4. 802.11ac transmissions
   5. Coaxial cable
4. Which of the following cellular technologies uses time division to separate phone calls and Internet connections on a single channel?
   1. SIM
   2. GSM
   3. LTE
   4. CDMA
   5. LTE-Advanced
5. While troubleshooting a printer problem, you figured out the printer’s static IP address had not been reserved on the DHCP server and so was mistakenly issued to a workstation. This caused a conflict and prevented users from accessing the printer. You have now configured the reservation in DHCP. What should you do next?
   1. Document the problem and your solution in your company’s knowledge base.
   2. Close the service ticket.
   3. Report your findings to the network admin.
   4. Check that the printer is plugged into the wall outlet.
   5. Confirm that users can now print successfully.
6. How does STP prevent or stop broadcast storms?
   1. It examines the source IP address field in each broadcast packet and temporarily blocks traffic from that address.
   2. It enables routers to choose one set of best paths and ensures that alternate paths are used only when the best paths are obstructed.
   3. It enables switches to calculate paths that avoid potential loops and artificially blocks the links that would complete a loop.
   4. It allows switches to monitor IP address assignments on a network.
   5. It lets switches filter RA messages so these messages can only come from specific interfaces on the switch.
7. What is the function of protocols and services at the network layer of the OSI model?
   1. To manage the flow of communications in both directions during a session
   2. To add segmentation and assembly information
   3. To encode and encrypt data
   4. To add logical addresses and properly route data
   5. To apply electrical pulses to the wire
8. You have created a new web server on a computer running the Linux operating system. Some of the modules aren’t loading correctly, and services are encountering errors. Which of the following applications should you check for information on these errors?
   1. Event Viewer
   2. IDS
   3. Packet sniffer
   4. NetFlow
   5. Syslog
9. Your 1000BASE-T network is wired following the TIA/EIA-568B standard. As you make your own patch cable, which wires do you crimp into pins 1 and 2 of the RJ-45 connector?
   1. White with green stripe and green
   2. White with brown stripe and brown
   3. White with blue stripe and blue
   4. White with red stripe and red
   5. White with orange stripe and orange
10. Which authentication technology issues tickets to give clients access to network services?
    1. Kerberos
    2. TACACS+
    3. RADIUS
    4. Multifactor authentication
    5. Diameter
11. Suppose your Windows laptop’s wireless network adapter is configured to use the 802.11n wireless networking standard. Also, suppose a café you visit has a popular model of an 802.11ac access point. Assuming you have the correct SSID and logon credentials, what will most likely happen when you attempt to associate with the café’s wireless network?
    1. Your wireless networking client will be able to see the access point but will be unable to associate with it.
    2. Your wireless networking client will not be able to see the access point.
    3. Your wireless networking client will be able to see the access point and attempt to associate with it, but the incompatible frequencies will prevent successful association.
    4. Your wireless networking client will be able to see the access point and attempt to associate with it, but the incompatible security techniques will prevent successful association.
    5. Your wireless networking client will be able to see the access point and successfully associate with it.
12. You have just rearranged the access points on your small office network. Now a group of employees complains that they cannot reliably get their workstations to connect with a new 802.11ac access point. You have confirmed that the workstations are using the correct SSID, security type, and passphrase. You have also confirmed that the access point is turned on and functioning properly because when you stand in the computer room where it’s located, you can connect to the access point from your smartphone. Which of the following is likely preventing the other users’ workstations from associating with the new access point?
    1. The users are attempting to log on using incorrect user IDs.
    2. The workstations are located beyond the access point’s range.
    3. The workstations are set to use 802.11g.
    4. The users have turned off their wireless antennas.
    5. The workstations’ wired NICs are causing addressing conflicts with their wireless NICs.
13. With which of these utilities can you require a Windows 10 Professional user to create a password of at least eight characters?
    1. Cmd
    2. Devmgmt.msc
    3. Virtmgmt.msc
    4. Gpedit.msc
    5. Netplwiz
14. Which protocol supports recovery of a router config file?
    1. UPS
    2. TFTP
    3. SSH
    4. SNMP
    5. OID
15. Which of the following is a likely reason for using VLANs?
    1. To facilitate easier migration from IPv4 to IPv6 addressing
    2. To enable DHCP on a network
    3. To limit broadcast domains
    4. To reduce the likelihood for user error when modifying TCP/IP properties
    5. To reduce the number of routing table entries
16. Which of the following wireless security techniques uses both RADIUS and AES?
    1. WPA2-Enterprise
    2. WPA
    3. WEP
    4. WPA-Enterprise
    5. WPA2
17. Your company is experiencing a growth spurt and is ready to invest in a more sophisticated disaster recovery plan. Currently the backup plan consists of a few spare computers in a storage closet, and data on the servers is duplicated weekly to an off-site backup service. The company owners have committed to acquiring additional servers to duplicate critical servers in their current network, and they want the servers to be configured identically to the servers now in use. The new servers will be stored at an off-site data center and updated every time the on-site servers are updated. What type of disaster recovery site is your company creating?
    1. Hot site
    2. Ambient site
    3. Cloud site
    4. Warm site
    5. Differential site
18. A virtual switch includes several virtual ports, each of which can be considered a .
    1. virtual bridge
    2. virtual router
    3. virtual gateway
    4. virtual hub
    5. virtual repeater
19. Which OSI layer(s) operate differently in wired versus wireless network connections?
    1. Layers 5, 6, and 7
    2. Layers 1, 2, and 3
    3. Layer 1
    4. Layer 2
    5. Layers 1 and 2
20. As a networking professional, you might use a multimeter to do which of the following? *Choose two*.
    1. Determine where the patch cable for a specific server terminates on the patch panel.
    2. Verify that the amount of resistance presented by terminators on coaxial cable networks is appropriate.
    3. Check for the presence of noise on a wire by detecting extraneous voltage.
    4. Confirm that a fiber-optic cable can transmit signals from one node to another.
    5. Validate the processing capabilities of a new router.
21. You’re setting up a wireless network for a coffee shop and want to provide some liability protection for the shop owners when customers use their Wi-Fi Internet access. Which of the following tools will provide this protection while still allowing customers convenient access to the Internet?
    1. ACL
    2. WPA2
    3. MAC filter
    4. EAPoL
    5. Captive portal
22. What type of device does this icon represent on a network diagram?



* 1. Router
  2. Access point
  3. Switch
  4. Firewall
  5. Internet

1. While configuring your new SOHO router, you’re given several security options. Which one would provide the most secure encryption of your transmissions?
   1. PSK
   2. AES
   3. WEP
   4. TKIP
   5. RC4

Go to pg.

[**help**](javascript://)