CISCO NETWORKING ACADEMY MODUL 1 – 3

1.2.6

1. Which of the following is the name for all computers connected to a network that participate directly in network communication?
   Host
2. When data is encoded as pulses of light, which media is being used to transmit the data?
   Fiber-Optic Cable
3. Which two devices are intermediary devices? (Choose two)
   Router
   Switches

1.3.3

1. Which connection physically connects the end device to the network?
   NIC
2. Which connections are specialized ports on a networking device that connect to individual networks?
   Inteface
3. Which type of network topology lets you see which end devices are connected to which intermediary devices and what media is being used?
   Logical topology
4. Which type of network topology lets you see the actual location of intermediary devices and cable installation?
   Physical topology

1.4.5

1. Which network infrastructure provides access to users and end devices in a small geographical area, which is typically a network in a department in an enterprise, a home, or small business?
   LAN
2. Which network infrastructure might an organization use to provide secure and safe access to individuals who work for a different organization but require access to the organization's data?
   Extranet
3. Which network infrastructure provides access to other networks over a large geographical area, which is often owned and managed by a telecommunications service provider?
   WAN

1.6.6

1. When designers follow accepted standards and protocols, which of the four basic characteristics of network architecture is achieved?
   Scalability
2. Confidentiality, integrity, and availability are requirements of which of the four basic characteristics of network architecture?
   Security
3. With which type of policy, a router can manage the flow of data and voice traffic, giving priority to voice communications if the network experiences congestion?
   QOS
4. Having multiple paths to a destination is known as redundancy. This is an example of which characteristic of network architecture?
   Fault Tolerance

1.7.10

1. Which feature is a good conferencing tool to use with others who are located elsewhere in your city, or even in another country?
   Video Communications
2. Which feature describes using personal tools to access information and communicate across a business or campus network?
   BYOD
3. Which feature contains options such as Public, Private, Custom and Hybrid?
   Cloud Computing
4. Which feature is being used when connecting a device to the network using an electrical outlet?
   Powerline
5. Which feature uses the same cellular technology as a smartphone?
   Wireless Broadband

1.8.3

1. Which attack slows down or crashes equipment and programs?
   Denial Of Services (DOS)
2. Which option creates a secure connection for remote workers?
   Virtual Private Network (VPN)
3. Which option blocks unauthorized access to your network?
   Firewall
4. Which option describes a network attack that occurs on the first day that a vulnerability becomes known?
   Zero-day or Zero-hour
5. Which option describes malicious code running on user devices?
   Virus, Worm, or Trojan horse

1.10.2

1. During a routine inspection, a technician discovered that software that was installed on a computer was secretly collecting data about websites that were visited by users of the computer. Which type of threat is affecting this computer?
   Spyware
2. Which term refers to a network that provides secure access to the corporate offices by suppliers, customers and collaborators?
   Extranet
3. A large corporation has modified its network to allow users to access network resources from their personal laptops and smart phones. Which networking trend does this describe?
   Bring Your Own Device
4. What is an ISP?
   It is an Organization that enables individuals and businesses to connect to the internet
5. In which scenario would the use of a WISP be recommended?
   A farm in a rural area without wired broadband access
6. What characteristic of a network enables it to quickly grow to support new users and applications without impacting the performance of the service being delivered to existing users?
   Scalability
7. A college is building a new dormitory on its campus. Workers are digging in the ground to install a new water pipe for the dormitory. A worker accidentally damages a fiber optic cable that connects two of the existing dormitories to the campus data center. Although the cable has been cut, students in the dormitories only experience a very short interruption of network services. What characteristic of the network is shown here?

Fault tolerance

8. What are two characteristics of a scalable network? (Choose two.)
   Suitable for modular devices that allow for expansion
   Grows in size without impacting existing users
9. Which device performs the function of determining the path that messages should take through internetworks?
   A Router
10. Which two Internet connection options do not require that physical cables be run to the building? (Choose two.)
    Cellular
    Satellite
11. What type of network must a home user access in order to do online shopping?
    The internet
12. How does BYOD change the way in which businesses implement networks?
    BYOD Provides flexibilityin where and how users can access network resources
13. An employee wants to access the network of the organization remotely, in the safest possible way. What network feature would allow an employee to gain secure remote access to a company network?
    VPN
14. What is the Internet?
    It Provides connections through interconnected global networks
15. What are two functions of end devices on a network? (Choose two.)
    They are the interface between humans and the communication network
    They originate the data that flows through the network

2.1.6

1. Which access method would be most appropriate if you were in the equipment room with a new switch that needs to be configured?
   Console
2. Which access method would be most appropriate if your manager gave you a special cable and told you to use it to configure the switch?
   Console
3. Which access method would be the most appropriate in-band access to the IOS over a network connection?
   Telnet/SSH
4. Which access method would be the most appropriate if you call your manager to tell him you cannot access your router in another city over the internet and he provides you with the information to access the router through a telephone connection?
   AUX

2.2.8

1. Which IOS mode allows access to all commands and features?
   Privileged EXEC mode
2. Which IOS mode are you in if the Switch(config)# prompt is displayed?
   Global Configuration mode
3. Which IOS mode are you in if the Switch> prompt is displayed?
   User EXEC mode
4. Which two commands would return you to the privileged EXEC prompt regardless of the configuration mode you are in? (Choose two.)
   CTRL+Z

End

2.4.8

1. What is the command to assign the name “Sw-Floor-2” to a switch?
   hostname Sw-Floor-2
2. How is the privileged EXEC mode access secured on a switch?
   enable secret class
3. Which command enables password authentication for user EXEC mode access on a switch?
   login
4. Which command encrypts all plaintext passwords access on a switch?
   service password-encryption
5. Which is the command to configure a banner to be displayed when connecting to a switch?
   banner motd $ Keep out $

2.6.3

1. What is the structure of an IPv4 address called?
   Dotted-decimal format
2. How is an IPv4 address represented?
   Four decimal numbers between 0 and 255 separated by periods
3. What type of interface has no physical port associated with it?
   Switch Virtual Interface (SVI)

2.9.4

1. Which statement is true about the running configuration file in a Cisco IOS device?
   It affects the operation of the device immediately when modified
2. Which two statements are true regarding the user EXEC mode? (Choose two.)
   The device prompt for this mode ends with the “>” symbol
3. Which type of access is secured on a Cisco router or switch with the enable secret command?
   Privileged EXEC
4. What is the default SVI on a Cisco switch?
   VLAN1
5. When a hostname is configured through the Cisco CLI, which three naming conventions are part of the guidelines? (Choose three.)
   The hostname should begin with a letter
   The hostname should be fewer than 64 characters in length
   The hostname should contain no spaces
6. What is the function of the shell in an OS?
   It interfaces between the users and the kernel
7. A router with a valid operating system contains a configuration file stored in NVRAM. The configuration file has an enable secret password but no console password. When the router boots up, which mode will display?
   User EXEC mode
8. An administrator has just changed the IP address of an interface on an IOS device. What else must be done in order to apply those changes to the device?
   Nothing must be done. Changes to the configuration on an IOS device take effect as soon as the command is typed correctly and the enter key has been presses
9. Which memory location on a Cisco router or switch will lose all content when the device is restarted?
   RAM
10. Why would a technician enter the command copy startup-config running-config?
    To copy an existing configuration into RAM

11. Which functionality is provided by DHCP?
    Automatic assignment of an IP address to each host
12. Which two functions are provided to users by the context-sensitive help feature of the Cisco IOS CLI? (Choose two.)
    Displaying a list of all available commands within the current mode
    Determining which option, Keyword, or argument is available for the entered command
13. Which memory location on a Cisco router or switch stores the startup configuration file?
    NVRAM
14. To what subnet does the IP address 10.1.100.50 belong if a subnet mask of 255.255.0.0 is used?
    10.1.0.0

3.1.12

1. What is the process of converting information into the proper form for transmission?
   Encoding
2. Which step of the communication process is concerned with properly identifying the address of the sender and receiver?
   Formatting
3. Which three are components of message timing? (Choose three.)
   Flow control
   Access method
   Response timeout
4. Which delivery method is used to transmit information to one or more end devices, but not all devices on the network?
   Multicast

3.2.4

1. BGP and OSPF are examples of which type of protocol?
   Routing
2. Which two protocols are service discovery protocols? (Choose two.)
   DNS
   DHCP
3. What is the purpose of the sequencing function in network communication?
   To uniquely label transmitted segments of data for proper reassembly by the receiver
4. This protocol is responsible for guaranteeing the reliable delivery of information.
   TCP

3.3.6

1. UDP and TCP belong to which layer of the TCP/IP protocol?
   Transport
2. Which two protocols belong in the TCP/IP model application layer?
   DNS
   DHCP
3. Which protocol operates at the network access layer of the TCP/IP model?
   Ethernet
4. Which of the following are protocols that provide feedback from the destination host to the source host regarding errors in packet delivery? (Choose two.)
   ICMPv4
   ICMPv6
5. A device receives a data link frame with data and processes and removes the Ethernet information. What information would be the next to be processed by the receiving device?
   IP at the internet layer

6. Which services are provided by the internet layer of the TCP/IP protocol suite? (Choose three.)
   Routing protocols
   Messaging
   Internet Protocol

3.4.5

1. True or false. Standards organizations are usually vendor-neutral.
   True
2. This standards organization is concerned with the Request for Comments (RFC) documents that specify new protocols and update existing ones.
   Internet Engineering Task Force (IETF)
3. This standards organization is responsible for IP address allocation and domain name management.
   Internet Assigned Numbers Authority (IANA)
4. What types of standards are developed by the Electronics Industries Alliance (EIA)?
   Electric wiring and connectors

3.6.6

1. What is the process of dividing a large data stream into smaller pieces prior to transmission?
   Segmentation
2. What is the PDU associated with the transport layer?
   Segment
3. Which protocol stack layer encapsulates data into frames?
   Data link
4. What is the name of the process of adding protocol information to data as it moves down the protocol stack?
   Encapsulation

3.7.11

1. True or false? Frames exchanged between devices in different IP networks must be forwarded to a default gateway.
   True
2. True or false? The right-most part of an IP address is used to identify the network that a device belongs to.
   False
3. What is used to determine the network portion of an IPv4 address?
   Subnet Mask
4. Which of the following statements are true regarding network layer and data link layer addresses? (Choose three.)
   Network layer addresses are logical and data link addresses are expressed as 12 hexadecimal digits
   Data link layer addresses are physical and network layer addresses are logical
   Network layer addresses are either 32 or 128 bits in length
5. What is the order of the two addresses in the data link frame?
   Destination MAC, Source MAC
6. True or False? Data Link addresses are physical so they never change in the data link frame from source to destination.
   FALSE

3.8.2

1. Which three acronyms/initialisms represent standards organizations? (Choose three.)

IANA
IEEE
IETF

2. What type of communication will send a message to all devices on a local area network?
   Broadcast
3. In computer communication, what is the purpose of message encoding?
   To convert information to the appropriate from for transmission
4. Which message delivery option is used when all devices need to receive the same message simultaneously?
   Broadcast
5. What are two benefits of using a layered network model? (Choose two.)
   It assists in protocol design
   It prevents technology in one layer from affecting other layers
6. What is the purpose of protocols in data communications?
   Providing the rules required for a specific type of communication to occur
7. Which logical address is used for delivery of data to a remote network?
   Destination IP address
8. What is the general term that is used to describe a piece of data at any layer of a networking model?
   Protocol data unit
9. Which two protocols function at the internet layer? (Choose two.)
   ICMP
   IP
10. Which layer of the OSI model defines services to segment and reassemble data for individual communications between end devices?
    transport
11. Which type of communication will send a message to a group of host destinations simultaneously?
    multicast
12. What process is used to receive transmitted data and convert it into a readable message?
    decoding
13. What is done to an IP packet before it is transmitted over the physical medium?
    It is encapsulated in a layer 2 frame
14. What process is used to place one message inside another message for transfer from the source to the destination?
    encapsulation
15. A web client is sending a request for a webpage to a web server. From the perspective of the client, what is the correct order of the protocol stack that is used to prepare the request for transmission?
    HTTP, TCP, IP, Ethernet