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[CCNA 1 \(v5.1 + v6.0\) Chapter 10 Exam Answers Full](#)

How to find: Press “Ctrl + F” in the browser and fill in whatever wording is in the question to find that question/answer.

NOTE: If you have the new question on this test, please comment Question and Multiple-Choice list in form below this article. We will update answers for you in the shortest time. Thank you! We truly value your contribution to the website.

1. Which two definitions accurately describe the associated application layer protocol?
(Choose two.)

- SMTP – transfers web pages from web servers to clients
- **Telnet – provides remote access to servers and networking devices***
- **DNS – resolves Internet names to IP addresses***
- FTP – transfers email messages and attachments
- HTTP – enables devices on a network to obtain IP addresses

Explain:

The Domain Name Service (DNS) protocol resolves Internet names to IP addresses. Hypertext Transfer Protocol (HTTP) transfers files that make up the web pages of the World Wide Web. The Simple Mail Transfer Protocol (SMTP) transfers mail messages and attachments. Telnet, a terminal emulation protocol, provides remote access to servers and networking devices. The File Transfer Protocol (FTP) transfers files between systems.

2. The application layer of the TCP/IP model performs the functions of what three layers of the OSI model? (Choose three.)

- physical
- **session***
- network
- **presentation***
- data link
- transport
- **application***

Explain:

The network access layer of the TCP/IP model performs the same functions as the physical and data link layers of the OSI model. The internetwork layer equates to the network layer of

the OSI model. The transport layers are the same in both models. The application layer of the TCP/IP model represents the session, presentation, and application layers of the OSI model.

3. Which layer in the TCP/IP model is used for formatting, compressing, and encrypting data?

- internetwork
- session
- presentation
- **application***
- network access

Explain:

The application layer of the TCP/IP model performs the functions of three layers of the OSI model – application, presentation, and session. The application layer of the TCP/IP model is the layer that provides the interface between the applications, is responsible for formatting, compressing, and encrypting data, and is used to create and maintain dialogs between source and destination applications.

4. What are two characteristics of the application layer of the TCP/IP model? (Choose two.)

- responsibility for logical addressing
- responsibility for physical addressing
- **the creation and maintenance of dialogue between source and destination applications ***
- **closest to the end user***
- the establishing of window size

Explain:

The application layer of the TCP/IP model is the layer that is closest to the end user, providing the interface between the applications. It is responsible for formatting, compressing, and encrypting data, and is used to create and maintain dialog between source and destination applications.

5. A manufacturing company subscribes to certain hosted services from its ISP. The services that are required include hosted world wide web, file transfer, and e-mail. Which protocols represent these three key applications? (Choose three.)

- **FTP***
- **HTTP***
- DNS

- SNMP
- DHCP
- **SMTP***

Explain:

The ISP uses the HTTP protocol in conjunction with hosting web pages, the FTP protocol with file transfers, and SMTP with e-mail. DNS is used to translate domain names to IP addresses. SNMP is used for network management traffic. DHCP is commonly used to manage IP addressing.

6. What is an example of network communication that uses the client-server model?

- A user uses eMule to download a file that is shared by a friend after the file location is determined.
- A workstation initiates an ARP to find the MAC address of a receiving host.
- A user prints a document by using a printer that is attached to a workstation of a coworker.
- **A workstation initiates a DNS request when the user types www.cisco.com in the address bar of a web browser.***

Explain:

When a user types a domain name of a website into the address bar of a web browser, a workstation needs to send a DNS request to the DNS server for the name resolution process. This request is a client/server model application. The eMule application is P2P. Sharing a printer on a workstation is a peer-to-peer network. Using ARP is just a broadcast message sent by a host.

7. Two students are working on a network design project. One student is doing the drawing, while the other student is writing the proposal. The drawing is finished and the student wants to share the folder that contains the drawing so that the other student can access the file and copy it to a USB drive. Which networking model is being used?

- **peer-to-peer***
- client-based
- master-slave
- point-to-point

Explain:

In a peer-to-peer (P2P) networking model, data is exchanged between two network devices without the use of a dedicated server.

8. What do the client/server and peer-to-peer network models have in common?

- Both models have dedicated servers.
- **Both models support devices in server and client roles.***
- Both models require the use of TCP/IP-based protocols.
- Both models are used only in the wired network environment.

Explain:

In both the client/server and peer-to-peer network models, clients and servers exist. In peer-to-peer networks, no dedicated server exists, but a device can assume the server role to provide information to a device serving in the client role.

9. What is an advantage for small organizations of adopting IMAP instead of POP?

- **Messages are kept in the mail servers until they are manually deleted from the email client.***
- When the user connects to a POP server, copies of the messages are kept in the mail server for a short time, but IMAP keeps them for a long time.
- IMAP sends and retrieves email, but POP only retrieves email.
- POP only allows the client to store messages in a centralized way, while IMAP allows distributed storage.

Explain:

IMAP and POP are protocols that are used to retrieve email messages. The advantage of using IMAP instead of POP is that when the user connects to an IMAP-capable server, copies of the messages are downloaded to the client application. IMAP then stores the email messages on the server until the user manually deletes those messages.

10. Which application layer protocol uses message types such as GET, PUT, and POST?

- DNS
- DHCP
- SMTP
- **HTTP***
- POP3

Explain:

The GET command is a client request for data from a web server. A PUT command uploads resources and content, such as images, to a web server. A POST command uploads data files to a web server.

11. When retrieving email messages, which protocol allows for easy, centralized storage and backup of emails that would be desirable for a small- to medium-sized business?

- **IMAP***

- POP
- SMTP
- HTTPS

Explain:

IMAP is preferred for small-to medium-sized businesses as IMAP allows centralized storage and backup of emails, with copies of the emails being forwarded to clients. POP delivers the emails to the clients and deletes them on the email server. SMTP is used to send emails and not to receive them. HTTPS is not used for secure web browsing.

12. What is the function of the Nslookup utility?

- **to manually query the name servers to resolve a given host name***
- to view the network settings on a host
- to manually force a client to send a DHCP request
- to display all cached DNS entries on a host

Explain: Nslookup is a command-line utility that is used to send a query to DNS servers to resolve a specific host name to an IP address.

13. What message type is used by an HTTP client to request data from a web server?

- POST
- ACK
- **GET***
- PUT

Explain: HTTP clients send GET messages to request data from web servers.

14. Which protocol is used by a client to communicate securely with a web server?

- SMB
- **HTTPS***
- SMTP
- IMAP

Explain: HTTPS is a secure form of HTTP used to access web content hosted by a web server.

15. Which three statements describe a DHCP Discover message? (Choose three.)

- The source MAC address is 48 ones (FF-FF-FF-FF-FF-FF).
- **The destination IP address is 255.255.255.255.***
- The message comes from a server offering an IP address.
- **The message comes from a client seeking an IP address.***
- **All hosts receive the message, but only a DHCP server replies.***

- Only the DHCP server receives the message.

Explain:

When a host configured to use DHCP powers up on a network it sends a DHCPDISCOVER message. FF-FF-FF-FF-FF-FF is the L2 broadcast address. A DHCP server replies with a unicast DHCPOFFER message back to the host.

16. What part of the URL, <http://www.cisco.com/index.html>, represents the top-level DNS domain?

- **.com***
- www
- http
- index

Explain:

The components of the URL <http://www.cisco.com/index.htm> are as follows:

http = protocol

www = part of the server name

cisco = part of the domain name

index = file name

com = the top-level domain

17. Which two tasks can be performed by a local DNS server? (Choose two.)

- providing IP addresses to local hosts
- allowing data transfer between two network devices
- **mapping name-to-IP addresses for internal hosts***
- **forwarding name resolution requests between servers***
- retrieving email messages

Explain:

Two important functions of DNS are to (1) provide IP addresses for domain names such as www.cisco.com, and (2) forward requests that cannot be resolved to other servers in order to provide domain name to IP address translation. DHCP provides IP addressing information to local devices. A file transfer protocol such as FTP, SFTP, or TFTP provides file sharing services. IMAP or POP can be used to retrieve an email message from a server.

18. Which phrase describes an FTP daemon?

- a diagnostic FTP program
- **a program that is running on an FTP server***
- a program that is running on an FTP client

- an application that is used to request data from an FTP server

Explain:

An FTP server runs an FTP daemon, which is a program that provides FTP services. End users who request services must run an FTP client program.

19. Which statement is true about FTP?

- The client can choose if FTP is going to establish one or two connections with the server.
- **The client can download data from or upload data to the server.***
- FTP is a peer-to-peer application.
- FTP does not provide reliability during data transmission.

Explain:

FTP is a client/server protocol. FTP requires two connections between the client and the server and uses TCP to provide reliable connections. With FTP, data transfer can happen in either direction. The client can download (pull) data from the server or upload (push) data to the server.

20. What is true about the Server Message Block protocol?

- Different SMB message types have a different format.
- **Clients establish a long term connection to servers.***
- SMB messages cannot authenticate a session.
- SMB uses the FTP protocol for communication.

Explain:

The Server Message Block protocol is a protocol for file, printer, and directory sharing. Clients establish a long term connection to servers and when the connection is active, the resources can be accessed. Every SMB message has the same format. The use of SMB differs from FTP mainly in the length of the sessions. SMB messages can authenticate sessions.

21. Which application layer protocol is used to provide file-sharing and print services to Microsoft applications?

- HTTP
- SMTP
- DHCP
- **SMB***

Explain:

SMB is used in Microsoft networking for file-sharing and print services. The Linux operating system provides a method of sharing resources with Microsoft networks by using a version of SMB called SAMBA.

22. Fill in the blank.

What is the acronym for the protocol that is used when securely communicating with a web server? **HTTPS**

Explain:

Hypertext Transfer Protocol Secure (HTTPS) is the protocol that is used for accessing or posting web server information using a secure communication channel.

23. Fill in the blank.

The HTTP message type used by the client to request data from the web server is the **GET** message.

Explain:

GET is one of the message types used by HTTP. A client (web browser) sends the GET message to the web server to request HTML pages.

24. Open the PT Activity.

The screenshot displays two windows from Cisco Packet Tracer. The left window, titled 'PT Activity', contains the following text:

Users on PC_1, PC_2, and PC_3 are all using different protocols when connecting with the server. During a recent security audit, it was noticed that one of the PCs is connecting to the server using FTP.

Using simulation mode, view the captured data packets by using the "Auto Capture / Play" button and then double click on the colored "Info" square.

Which PC or PCs are sending FTP packets to the server?

Return to the assessment to answer the question.

The right window, titled 'Cisco Packet Tracer - Assessment', shows a network diagram in 'Logical' view. A central switch is connected to three devices: a Server (IP 192.168.1.253/24), PC_3 (IP 192.168.1.30/24), and PC_1 (IP 192.168.1.10/24). The switch is also connected to PC_2 (IP 192.168.1.20/24). The status bar at the bottom indicates 'Realtime' mode and 'Scenario 0'.

Perform the tasks in the activity instructions and then answer the question. Which PC or PCs are sending FTP packets to the server?

PC_3

PC_1

PC_2*

PC_1 and PC_3

Explain:

After you view the details of the packets that are being transferred between each PC and the server, you will see that the PC that is using a destination port number of 20 or 21 is the PC using the FTP service. PC_2 has an outbound port number of 21 to create an FTP control session with the server at 192.168.1.253.

25. Fill in the blank.

```
<output omitted>

> cisco.netacad.net
Server: Unknown
Address: 192.168.0.1

Non-authoritative answer:
Name: cisco.netacad.net
Address: 72.163.6.223

<output omitted>
```

Refer to the exhibit. What command was used to resolve a given host name by querying the name servers?

nslookup

Explain:

A user can manually query the name servers to resolve a given host name using the nslookup command. Nslookup is both a command and a utility.

26. Match a statement to the related network model. (Not all options are used.)

Question as presented:

Match a statement to the related network model. (Not all options are used.)	
requires a specific user interface	peer-to-peer network Target Target
no dedicated server is required	
a background service is required	peer-to-peer application Target Target
client and server roles are set on a per request basis	
devices can only function in one role at a time	

Question as presented:

Match a statement to the related network model. (Not all options are used.)

requires a specific user interface	peer-to-peer network	Target
no dedicated server is required		Target
a background service is required	peer-to-peer application	Target
client and server roles are set on a per request basis		Target
devices can only function in one role at a time		Target

Place the options in the following order: peer-to-peer network

[+] no dedicated server is required

[+] client and server roles are set on a per request basis

peer-to-peer application

[#] requires a specific user interface

[#] a background service is required

Explain:

Peer-to-peer networks do not require the use of a dedicated server, and devices can assume both client and server roles simultaneously on a per request basis. Because they do not require formalized accounts or permissions, they are best used in limited situations. Peer-to-peer applications require a user interface and background service to be running, and can be used in more diverse situations.

27. Match the functions to the name of the application. (Not all options are used.)

Question as presented:

Match the functions to the name of the application. (Not all options are used.)

maps URLs to numerical addresses	Telnet
dynamically assigns IP addresses to clients	DHCP
displays web pages	DNS
allows viewing of messages on email clients	IMAP
sends email messages	HTTP
	SMTP
	FTP

Question as presented:

Match the functions to the name of the application. (Not all options are used.)

maps URLs to numerical addresses	Telnet
dynamically assigns IP addresses to clients	DHCP
displays web pages	DNS
allows viewing of messages on email clients	IMAP
sends email messages	HTTP
	SMTP
	FTP

Place the options in the following order:

— not scored —

DHCP -> **dynamically assigns IP address to clients**

DNS -> **maps URLs to numerical addresses**

IMAP -> **allows viewing of messages on email clients**

HTTP -> **displays web pages**

SMTP -> **sends email messages**

— not scored —

Older Version

28. Which three layers of the OSI model provide similar network services to those provided by the application layer of the TCP/IP model? (Choose three.)

- physical layer
- **session layer***
- transport layer
- **application layer***
- **presentation layer***
- data link layer

29. Which two tasks are functions of the presentation layer? (Choose two.)

- **compression***
- addressing
- **encryption***
- session control
- authentication

30. Select three protocols that operate at the Application Layer of the OSI model. (Choose three.)

- ARP
- TCP
- DSL
- **FTP ***
- **POP3 ***
- **DHCP***

31. A manufacturing company subscribes to certain hosted services from their ISP. The services required include hosted world wide web, file transfer, and e-mail. Which protocols represent these three key applications? (Choose three.)

- **FTP ***
- **HTTP***
- DNS
- SNMP
- DHCP
- **SMTP***

32. What are two characteristics of peer-to-peer networks? (Choose two.)

- scalable
- one way data flow
- **decentralized resources***
- centralized user accounts
- **resource sharing without a dedicated server***

33. Which two actions are taken by SMTP if the destination email server is busy when email messages are sent? (Choose two.)

- SMTP sends an error message back to the sender and closes the connection.
- **SMTP tries to send the messages at a later time.***
- SMTP will discard the message if it is still not delivered after a predetermined expiration time.
- **SMTP periodically checks the queue for messages and attempts to send them again.***
- SMTP sends the messages to another mail server for delivery.

34. A DHCP-enabled client PC has just booted. During which two steps will the client PC use broadcast messages when communicating with a DHCP server? (Choose two.)

- **DHCPDISCOVER***
- DHCPACK

- DHCP OFFER
 - **DHCPREQUEST***
 - DHCPNAK
35. A user accessed the game site www.nogamename.com last week. The night before the user accesses the game site again, the site administrator changes the site IP address. What will be the consequence of that action for the user?
- The user will not be able to access the site.
 - **The user will access the site without problems.***
 - The user will have to modify the DNS server address on the local PC in order to access the site.
 - The user will have to issue a ping to this new IP address to be sure that the domain name remained the same.
36. Which DNS server in the DNS hierarchy would be considered authoritative for the domain name records of a company named netacad?
- .com
 - **netacad.com***
 - mx.netacad.com
 - www.netacad.com
37. When would it be more efficient to use SMB to transfer files instead of FTP?
- when downloading large files with a variety of formats from different servers
 - when a peer-to-peer application is required
 - when the host devices on the network use the Windows operating system
 - **when downloading large numbers of files from the same server***
 - when uploading the same file to multiple remote servers
38. Fill in the blank.
- What is the acronym for the protocol that is used when securely communicating with a web server? **HTTPS**
- Hypertext Transfer Protocol Secure (HTTPS) is the protocol that is used for accessing or posting web server information using a secure communication channel.
39. Match the DNS record type to the corresponding description. (Not all options are used.)

Match the DNS record type to the corresponding description. (Not all options are used.)	
authoritative name server	A
mail exchange record	E
canonical name	NS
end device address	CNAME
	MX

Place the options in the following order:

end device address

– not scored –

authoritative name server

canonical name

mail exchange record

40. Match the purpose with its DHCP message type. (Not all options are used.)

Match the purpose with its DHCP message type. (Not all options are used.)	
a message that is used to locate any available DHCP server on a network	DHCPREQUEST
a message that is used to identify the explicit server and lease offer to accept	DHCPDISCOVER
a message that is used to acknowledge that the lease is successful	DHCPNAK
a message that is used to suggest a lease to a client	DHCPOFFER
	DHCPACK

Place the options in the following order:

a message that is used to identify the explicit server and lease offer to accept

a message that is used to locate any available DHCP server on a network

– not scored –

a message that is used to suggest a lease to a client

a message that is used to acknowledge that the lease is successful