Computer Network Home_3

3.7 When two applications communicate over the Internet, which one is the server?

Answer: The application that waits for some other applications to contact is called server, and the application that contact other one is called client.

4.6 Summarize the characteristics of HTML

Answer: HTML has the following general characteristics:

- Uses a textual representation
- Describes pages that contain multimedia
- Follows a declarative rather than procedural paradigm
- Provides markup specifications instead of formatting
- Permits a hyperlink to be embedded in an arbitrary object
- Allows a document to include metadata

4.13 How does an FTP server know the port number to use for a data connection?

Answer: Before making a request to the server, a client allocates a protocol port on its local operating system and sends the port number to the server. The client binds to the port to await a connection, and then transmits a PORT command over the control connection to inform the server about the port number being used.

4.18 What are the characteristics of SMTP?

Answer:

- Follows a stream paradigm
- Uses textual control messages
- Only transfers text messages
- Allows a sender to specify recipients' names and check each name
- Sends one copy of a given message

4.21 What is the overall purpose of the Domain Name System?

Answer: The overall purpose of Domain Name System (DNS)to provide a service that maps human-readable symbolic names to computer addresses.

4.25 When does a domain name server send a request to an authoritative server, and when does it answer the request without sending to the authoritative server?

When the name request is outside the resolution permission and the answer is not in the cache, a request is sent to the authoritative domain name service. Otherwise it is not necessary.

4.26 True of false: a muti-national company can choose to divide its domain name hierarchy in such a way that the company has a domain name server in Europe, one in Asia, and one in North America.

False. The higher-level segment of a domain name depends on the region.

29.13 If you and a friend each have a pair of public and private keys for a public key encryption system, how can you and your friend conduct daily communication without being tricked by a replay attack?

Sending a message encrypts the other party's open key, and the private key is accepted to decrypt.