

Midterm Review Questions: Chapter 2

1. Does P2P file-sharing application fall under client-server architecture? Explain.
2. Which of the following uses handshaking protocol at the application layer?
 - a. HTTP
 - b. UDP
 - c. TCP
 - d. SMTP
3. HTTP stateless because
 - a. Cookies are stateless
 - b. TCP is stateless
 - c. Server maintains no information about past client requests
 - d. Client maintains no information about past server responses
4. Persistent HTTP without pipelining could be described as:
 - a. A session requiring 2 RTT per object
 - b. Client issuing new request only after receiving previous response
 - c. Client sending requests as it encounters a referenced object
 - d. A session requiring 1 RTT for all referenced objects
5. For FTP how many connections does a client have with the server?
 - a. 1
 - b. 2
 - c. 3
 - d. 4
6. What is MIME?
 - a. Email message format for multimedia extensions.
 - b. HTTP message format for email message.
 - c. IMAP access protocol for email user agent.
 - d. POP access protocol for email user agent.
7. In DNS resource records (RR) (Name, Value, Type, TTL), type=MX indicates:
 - a. Value is name of a DNS server
 - b. Value is IP address of a authoritative DNS server
 - c. Value is the canonical name of a mail server
 - d. Value is the canonical name of a MIME exchange server

8. Fill-in the boxes in table 1.

Table 1

Application	Protocol	Transport Protocol
Electronic mail	(a)	TCP
Remote terminal access	Telnet	(b)
Web	HTTP	(c)
File transfer	(d)	TCP
Internet's name service	DNS	(e)
Streaming audio/video	RTSP (Real Time Streaming Protocol)	TCP or UDP
(f)	VoIP	UDP

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1. Yes. All communication sessions have a client side and a server side. In a P2P file-sharing application, the peer that is receiving a file is typically the client and the peer that is sending the file is typically the server.
2. (d). A protocol uses handshaking if the two communicating entities first exchange control packets before sending data to each other. SMTP uses handshaking at the application layer whereas HTTP does not.
3. (c)
4. (b)
5. (b). FTP clients build two connections (control channel and data channel) with the FTP server.
6. (a)
7. (c)
8. (a) SMTP (b) TCP (c) TCP (d) FTP (e) UDP (f) Internet telephony