1、Suppose you wanted to do a transaction from a remote client to a server as fast as possible. Would you use UDP or TCP? Why?

UDP。使用 UDP 是面向无连接的传输协议，不需要建立连接。而 TCP 需要三次握手，至少两次 Round trip time 来建立连接，时延较长。

2、What is an overlay network? Does it include routers? What are the edges in the overlay network?

在 P2P 文件共享系统中，覆盖网络（overlay network）由文件共享链接中的点和点之间的逻辑连接组成。覆盖网络不包含路由。如果点之间存在半永久的 TCP 连接，那么他们之间就存在这样的逻辑链路。

3、Suppose within your Web browser you click on a link to obtain a Web page. The IP address for the associated URL is not cached in your local host, so a DNS lookup is necessary to obtain the IP address. Suppose that n DNS servers are visited before your host receives the IP address from DNS; the successive visits incur an RTT of RTT1, …, RTTn. Further suppose that the Web page associated with the link contains exactly one object, consisting of a small amount of HTML text. Let RTT0 denote the RTT between the local host and the server containing the object. Assuming zero transmission time of the object, how much time elapses from when the client clicks on the link until the client receives the object?

用户机用 RTT1+RTT2+RTT3+…+RTTn 的时间拿到了 IP 地址，又用了两次 RTT0 接收到了报文内容。所以总的时间是 2RTT0+RTT1+RTT2+RTT3+…+RTTn

4、True or false?
a. A user requests a Web page that consists of some text and three images. For this page, the client will send one request message and receive four response messages.
b. Two distinct Web pages (for example, www.mit.edu/research.html and www.mit.edu/students.html) can be sent over the same persistent connection.
c. With nonpersistent connections between browser and origin server, it is possible for a single TCP segment to carry two distinct HTTP request messages.
d. The Date: header in the HTTP response message indicates when the object in the response was last modified.
e. HTTP response messages never have an empty message body.

Answer:
a. F
b. T
c. F
d. F
e. T

5、Suppose that in UDPClient.py, after we create the socket, we add the line:

clientSocket.bind(('', 5432))

Will it become necessary to change UDPServer.py? What are the port numbers for the sockets in UDPClient and UDPServer? What were they before making this change?
没必要 UDPServer.py 中的任何内容，套接字可以容纳任何端口号，在这里，将分配端口号来匹配客户机的端口号，程序依旧可以正常运行。
UDPClient=5432
UDPServer=2048

在修改之前，UDPClient 不确定，UDPServer 为 2048