I226 Computer Networks

Chapter 7 Application Layer and Network Programming Basics
(Review Questions)

Each chapter includes a few questions that are designed to help you to revise your first-level understanding of the slide material presented in the lecture.

1. What is the role of the application layer protocols?
2. What kind of data types do e-mails take during the transfer in the network?
3. Discuss the key technologies which realized the WWW in technical aspects. Give at least three issues.
4. Show how to retrieve some text information from a HTTP server using a TELNET client application.
5. Discuss the pros and cons about the two network application models; server-client and peer-to-peer.
6. In the X-window system, X server runs on the client which users directly use, rather than the large scale computer in the server firm. This seems to be opposite to other server-client applications. Explain why this situation occurs.
7. A server process can directly give a service to a client, but it is possible to make a copy of it to serve a specific client request. Discuss the advantages and disadvantages for these two methods.
8. Server processes can take two forms concerning the way of accepting request from clients. One is server processes themselves wait for the request, and the other is asking a dedicated process which calls server processes on the client request. What these two methods called? Discuss the advantages and disadvantages for each case.
9. Explain the inter-process communication with socket system call. Illustrate the difference between socket and RPC.
10. Modify the RPC sample program to make a remote computer to calculate the factorial of the number which client program gives.
11. Discuss the difficulties on sending a data across the network from the viewpoint of data structure. Give some solutions for it.