

## Tutorial 5

1. Read IMAP protocol from RFC 3501 and prepare a report on it. (Pages 1 to 3)
2. Give Some examples of Application Layer Protocols and where they are used. (e.g. applications that are using any particular Protocol)
3. If the TCP server needs to support  $m$  simultaneous connections, each from a different host (client) then how many sockets would be needed to create?
4. Why must the server program be executed before the client program for TCP relied application? And why for UDP relied applications, may the client program be executed before the server program?
5. Describe how Web caching can reduce the delay in receiving a requested object. Will Web caching reduce the delay for all objects requested by a user or for only some of the objects? Why?
6. Consider an e-commerce site that wants to keep a purchase record for each of its customers. Describe how this can be done with cookies.
7. Suppose Alice, with a Web-based e-mail account (such as Hotmail or gmail), sends a message to Bob, who accesses his mail from his mail server using POP3. Discuss how the message gets from Alice's host to Bob's host. Be sure to list the series of application-layer protocols that are used to move the message between the two hosts.