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Assignment 4

TCP IP Networking

Chapter 2

31.

a) The client will attempt to connect to the server using TCP. Because the server is not running, the TCP connection attempt will fail.

b) UDP does not expect to first set up a connection with the server; it will send messages without consideration for if the server is receiving them. So any messages sent before the server is running will just not reach the destination. However, once the server is running, any new messages sent by the client should reach the server.

c) Having a different port number for the client and server would mean that they would be unable to communicate with each other. The programs need to be using the same port number to communicate.

33.

Yes, you can configure the browser to have multiple simultaneous connections to a website. The advantage is that fewer packets will be lost. The disadvantage is that too many connections to a website could cause traffic and congestion which would slow down the transfer rate.

34.

Some applications such as telnet do not require message boundaries. However, in some cases, applications need to know message boundaries to distinguish the beginning of one message from the end of another, which TCP does not do.

35.

Apache web server is open source web server software that can be used for people who want to host their websites and web content. It is free of cost and can be extended with a number of compiled modules which are used to expand the core functionality and can be used and created by anyone.

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The python web server exercise is provided in the submitted folder. Check the README file.