When people describe client—server architecture, they are usually referring to a system in which a large server is serving a client on a PC. With X Window, the reverse is frequently the case. Explain.

The X Window provides image services in a similar way that a displayer server provides services. So it makes sense to call an X Window a server.

16.15

If you could design a "wild card" system with features beyond those normally provided in a CLI, what features would you add?

Easy to learn and use, little training, amenable to multi-tasking.

17.4

From a Windows command line prompt, do a DIR command. Carefully note how much space remains on your disk. Now open up NOTEPAD, and create a new file containing just a period with a carriage return. Call this file PROB174.TXT and return to the prompt. Do a DIR PROB174.TXT command. How much space does your new file take up? How much space remains on your disk? Explain what happened.

838,656,892,928 bytes

2 bytes

838,656,892,928 bytes

## 17.13

The access control list for a file specifies which users can access that file, and how. Some researchers have indicated that an attractive alternative would be a user control list, which would specify which files a user could access, and how. Discuss the trade-offs of such an approach in terms of space required for the lists, and the steps required to determine whether a particular file operation is permitted.