9.2 Discuss the problems raised by the use of aliases in a name service, and indicate how, if at all, these may be overcome.

9.5 How does caching help a name service's availability?

9.6 Discuss the absence of a syntactic distinction (such as use of a final '.') between absolute and relative names in DNS.

9.8 Why do DNS root servers hold entries for two-level names such as yahoo.com and purdue.edu, rather than one-level names such as edu and com?

14.1 In a decentralized variant of the two-phase commit protocol the participants communicate directly with one another instead of indirectly via the coordinator. In phase I, the coordinator sends its vote to all the participants. In phase 2, if the coordinator's vote is No, the participants just abort the transaction; if it is Yes, each participant sends its vote to the coordinator and the other participants. Each of which decides on the outcome according to the vote and carries it out. Calculate the number of messages and the number of rounds it takes. What are its advantages or disadvantages in comparison with the centralized variant?

14.2 A three-phase commit protocol has the following parts:
Phase 1: is the same as for two-phase commit.
Phase 2: the coordinator collects the votes and makes a decision; if it is No, it aborts and informs participants that voted Yes; if the decision is Yes, it sends a preCommit request to all the participants. Participants that voted Yes wait for a preCommit or doAbort request. They acknowledge preCommit requests and carry out doAbort requests.
Phase 3: the coordinator collects the acknowledgments. When all are received, it Commits and sends doCommit to the participants. Participants wait for a doCommit request. When it arrives they Commit.
Explain how this protocol avoids delay to participants during their 'uncertain' period due to the failure of the coordinator or other participants. Assume that communication does not fail.

14.3 Explain how the two-phase commit protocol for nested transactions ensures that if the top-level transaction commits, all the right descendants are committed or aborted.