

EECS 423
Distributed Systems
2005 Fall Semester

Midterm

October 20, 2005

Write your name and Case ID on your paper.
The test is 1:15 minutes, 100 points. It contributes 15% to your grade.
Closed books and notes.

1. Explain the structure of a sequential server, and discuss both its limitations and the circumstances where this type of server is appropriate.
2. Explain in words and with diagrams the role of proxies as intermediary between clients and origin servers, and give one example of the benefits of using proxies.
3. The following questions are about process migration.
 - a. Explain how virtual machines can aid process or agent migration in heterogeneous systems.
 - b. Define the concept of a fastened resource.
 - c. Describe the use of global references for fastened resources to support process migration.
 - d. Describe a scenario in which global references are not appropriate for fastened resources.
4. Describe a method for authentication based on a shared secret key. The method should use 5 messages. You may omit the explanation of attacks that would occur with fewer messages.