332: 415 Introduction to Automatic Control — Exam I — Fall 2000

Time and Place: Monday, November 6, 2000, 1:10–2:30, SEC 117. Closed book and notes.

No makeups will be given.

The exam will cover the following topics.

I. Block diagram algebra and signal flow graphs (Sections 2.6 and 2.7).
Homework Problems: E2.26, E2.28, P2.46 and E.2.8, E2.9, E2.22, P2.34.

II. Feedback control system sensitivity to parameter variations, disturbance rejection, and reduction of steady state errors (Sections 4.1–4.2, 4.4, 4.5)
Homework Problems: E4.1, E4.3, E4.4, E4.7, P4.6, P4.7, P4.14, P4.15, P4.17.

III. Transient response parameters and steady state errors (Sections 5.1–54, 5.7–5.8).
Homework Problems: E5.2, E5.8, E5.9, E5.12, P5.1, P5.3, P5.4, P5.19.

IV. Stability of linear systems and Routh-Hurwitz test (Sections 5.6, 6.1–6.3)
Homework Problems: E6.1, E6.4, E6.6, E6.9, E6.19, P6.1.

Textbook: R. Dorf, *Modern Control Systems*, Addison Wesley, 1998.

SOLUTIONS TO HOMEWORK PROBLEMS ARE POSTED IN SERC LIBRARY
in file 322: 415, Dr. Puri.

Substitute Instructor:
Zoran Gajic, Office ELE 222, tel: 5–3415

Special Office Hours for Exam I:
Th Nov. 2, 11:30–12:50, in WINLAB.

Dr. Puri will resume teaching this course on Wednesday, Nov. 8, 2000.