## Required for Test 2

Matlab

- Be able to read a matlab diary and find answers to questions about the Input-Output Analysis or the Markov Processes.

Section 2.5

- Calculate the inverse of a square matrix using the Gauss-Jordan Method (using row operations)

Section 2.6

- Write the input-output matrix for the sectors of an economy
- Set up the matrix equation to find the output levels for each sector to meet demands.


## Section 8.1

- Write the transition matrix $T$, for a given Markov process - or interpret the entries in a given transition matrix.
- Write the initial distribution matrix for the process
- Use the transition matrix to predict the distribution after $n$ time periods.


## Section 8.2

- Decide whether a given process has a stable distribution. (It has one if the transition matrix is Regular)
- Find the stable distribution by writing and solving a system of equations.


## Section 8.3

- Write the absorbing transition matrix T, for a given Markov processor interpret the entries in a given transition matrix.
- Find the stable matrix for the process using the partition method. (Identify $\mathrm{S}, \mathrm{R}$ and calculate $\mathrm{S}^{*}(\mathrm{I}-\mathrm{R})^{-1}$ )
- Find the fundamental matrix $\mathrm{F}=(\mathrm{I}-\mathrm{R})^{-1}$ and interpret the entries as expected number of time periods before absorption.

