1. (25%) Identify and/or Define the following:

  A. Weak Form of the Median Voter Theorem

  B. Fiscal Illusion

  C. Agenda Control

  D. Probabilistic Voting Model

  E. Rational Ignorance

2. (25%) Construct a one private good, one public good utility maximizing median voter model of government regulation. Assume that the government can apply more or less stringent regulation R on industry (perhaps some environmental standard) and that the regulations indirectly affect everyone's income, $Y = Y^o + y(R)$. More stringent regulation reduces income but increase some other good relevant for the voter (perhaps environmental quality). Define all notation, and briefly describe each step in the development of your model.

   A. Characterize first order conditions for the median voter's preferred regulation.

   B. Use the implicit function rule to determine whether an increase in the median voter's unaffected income, Y^o, causes an increase in his preferred public service level.

   C. Discuss briefly what this model predicts, if anything, about the long term growth of government regulation.

3. (25%) Voting Cycles

   A. Use a three person 2-dimensional issue space to demonstrate that voting cycles are very likely to arise in such a space.

   B. Show the collection of Pareto optimal outcomes in "A", and demonstrate that it is possible to get majority approval for moves out of the Pareto set.

   C. Show one configuration of five people (with different ideal points) that is cycle free in a 2-dimensional issue space.

4. (25%) Suppose that the probability of election to public office depends only on relative campaign expenditures, $P = E_1/ (E_1+E_2)$ and that candidates obtain "ego rents," R, from elective office.

A. Analyze a symmetric two candidate election-seeking contest in which attracting campaign funds is costly, $C_i = aE_i$, and candidates attempt to maximize their expected net ego rents. At the Nash Equilibrium, how much of a candidate's ego rents are consumed by the process of fund raising?

B. How would your analysis have to change for all the "ego rents" to be completely dissipated by fund raising efforts?

C. How would campaign finance rules affect the degree of rent dissipation in your model? Illustrate/discuss such reforms with respect to the political and legal institutions of the United States.

D. How would incumbency affect the outcome? (Hint, incumbency can be modeled as an increase in the productivity of one candidate efforts.)