

## 1. Identify and/or Define the following:

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|-----------------------------|-----------------------------|
| a. free rider problem       | j. cyclic majority          |
| b. Niskanen model           | k. pork barrel dilemma      |
| c. rent seeking             | l. ear-marled tax           |
| d. political agency problem | m. social security          |
| e. combined model           | n. "fire alarm"             |
| f. Pareto optimal           | o. externality              |
| g. rational ignorance       | p. capture theory           |
| h. fiscal illusion          | q. rent-seeking costs       |
| i. median voter             | r. Constitutional Economics |

## 2. Depict the largest budget that a budget maximizing bureaucrat could ever obtain using "all or nothing" offers:

- if Niskanen's view of bureaucratic behavior is correct.
- Prove that if you assume linear MB and MC curves, Niskanen's analysis implies that government is twice as large as it "should be."
- Show that with non-linear MB and MC curves, government could be larger or smaller than twice the median voter's ideal service level.
- If Niskanen's model is correct, would voters still want to use bureaucracies to provide government services? Why or why not.
- Suppose that bureaucrats do try to maximize their budgets but are unable to obtain Niskanen's extreme budget, how would this change your answer to B and D?

## 3. Suppose that interest groups provide external benefits and costs for individual's outside the group. For example, politically active farmers generate benefits for all farmers not just politically active farmers. What do externalities imply, if anything, about:

- the scale of special interest group lobbying relative to that which maximizes net benefits for the group
- the extent of rent-seeking losses,
- the kinds of groups that are likely to be organized and be most effective
- Use MB and MC cost curves to illustrate your analysis, and explain the logic of your diagram.

## 4. Compare and contrast the external interest group models of Becker, Tullock, and Olson with the "internal" interest group models of Niskanen.

- Use a game matrix to analyze incentives for individuals to contribute to these four kinds of interest groups.
  - What makes them different?
  - Discuss how all of these models, in effect, "bound" the extent to which inefficient outcomes are generated by non-democratic policy making.
5. Under there any circumstances in which these special interest group models generate Pareto optimal policy outcomes?
6. Use a "combined model" diagram to illustrate the tradeoffs that a candidate may make to obtain campaign resources (money and volunteers) from an interest group. (Assume that the other candidate has adopted the median voter's ideal point as his or her proposed platform.)
- Illustrate the case in which the candidate with the most money wins the election.
  - Illustrate the case in which campaign resources are irrelevant.
  - Illustrate the case in which both campaign resources and candidate position matter.
  - Explain how rational ignorance affects the ability of candidates to pursue policies favored by interest groups rather than that favored by the median voter.
7. Suppose that there are two risk neutral rent seekers, A and B, pursuing rents that will be granted by the following sort of mechanism:
- $$R_A = A/(A + B) - A \quad \text{and} \quad R_B = B/(A + B) - B$$
- Find the Nash equilibrium of this game if A invests A dollars of effort and B invests B dollars of effort in the rent seeking contest.
  - Draw a diagram of your result for "a".
  - How much of the prize (1 dollar) is dissipated at the Nash equilibrium.
  - In what sense are rent-seeking activities wasteful?
8. Describe how rent-seeking losses differ from the standard dead-weight losses of a Harberger analysis of monopoly or tariffs.
- Are rent-seeking losses the result of miscounting the benefits of those doing the seeking?
  - Why or why not?
  - Gordon Tullock has argued that the rent-seeking "industry" is smaller than you would expect based upon the rents won by industries with effective lobbyists. Are there any reasons rent-seeking have higher rates of return than other types of business investments?

9. Construct a diagram to represent a one public good median voter model of government finance. Assume that the government will divide up the cost of the public service equally among three voters who disagree about the optimal level of the public service.
  - A. Characterize the median voter's preferred public service level.
  - B. Does an increase in the median voter's wealth causes an increase in his preferred public service level? Explain.
  - C. Use your diagram(s) to demonstrate that no one other than the median voter is satisfied with this level of public service. Is this evidence of political failure?
  - D. Is there a series of different "tax prices" that could make them all agree to a single Pareto Efficient service level?
10. Use a median voter model to analyze the demand for Environmental regulation.
  - A. Explain what the cost of regulation is for a median voter.
  - B. Depict the median voter's ideal level of environmental regulation.
  - C. Explain why the median voter does not demand even higher environmental quality.
11. Discuss briefly a typical voter's benefits and costs of drilling for oil in ANWAR.
  - A. Now, explain circumstances in which the median voter might change her mind about whether drilling should or should not take place in ANWAR.
  - B. How can interest groups affect government policies on ANWAR in a well functioning democracy?
12. Analyze a typical voter's financial interest in the social security program.
  - A. In what case would a voter prefer a modest government sponsored pension program.
  - B. Are there cases in which a rational voter would prefer to have all of GNP devoted to social security programs? Explain why or why not?
  - C. Use an age based median voter model to represent the size of a public pension program.
  - D. Under what circumstances will the program be expanded (increase public pension levels)?
  - E. Under what circumstances will the program be curtailed (reduce public pension levels).
  - F. How might interest groups affect the size and type of pension program that would be adopted? Is their influence likely to be larger or smaller than that associated with other government programs? Explain your reasoning.
13. Voting Cycles
  - A. Use a three person three possibility election to demonstrate the majority rule cycle problem.
  - B. Use a three person 2-dimensional issue space to demonstrate that voting cycles are very likely as soon as a second issue dimension is added.
  - C. Show the collection of Pareto optimal outcomes in "b", and demonstrate that it is possible to get majority approval for moves out of the Pareto set.
  - D. Discuss how institutional arrangements can reduce the likelihood of such majority cycles.
  - E. Show three or four configurations of five people (ideal points) that are cycle free in a 2-dimensional issue space.
  - F. Suppose that one of your voters has the ability to control the agenda on the next three votes. If the "reversion" point is always the last point to obtain majority approval and the initial reversion point is the MEAN of the voter ideal points in "e", show how agenda control allows the agenda setter to do much better than this Pareto optimal outcome.
14. Discuss how cost benefit analysis allows one to escape from the pork-barrel dilemma. Why doesn't log rolling always generate gains to trade like exchange in ordinary markets does?
15. Institutional reforms can theoretically reduce the problems of rent-seeking, voter cycles and voter ignorance.
  - A. Suggest several institutional arrangements which affect either (or both) rent-seeking losses or improve voting outcomes.
  - B. Construct fairly simple geometric representations of how the institutions in "a" affect voter, representative, or bureaucratic incentives and thereby political outcomes.
  - C. Discuss alternative methods by which such institutional alternatives might be appraised. (Majoritarian, social net benefit maximizing, Paretian, Contractarian.)
  - D. In what ways, if any, are the politics of institutional reform different from that of ordinary legislation?
16. Discuss the implicit and explicit roles of institutions in public choice analysis.
  - A. How do they frame the collective choice problem?
  - B. How do they affect the outcomes/policies adopted?
  - C. How are institutions changed by the political processes that they define?
  - D. Explain why are constitutions tend to be more stable than ordinary legislation.