Public Sector Economics Test Questions

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1. Governments should act to further the public interest. This statement would probably receive general agreement, but it is not always clear exactly what determines when something is in the public interest. Discuss various measures of the public interest, including utilitarianism, the Pareto criteria, potential compensation, and the social welfare function. Explain each concept and the advantages and disadvantages of each.

2. What is the Coase theorem? Under what conditions will the Coase theorem's conclusions hold. Be sure to explain the importance of the distinction between small groups and large groups in the application of the theorem. What did Coase mean when he referred to the reciprocal nature of the problem with regard to his theorem?

3. What is the median voter model? Explain three ways in which the conclusion of the model can be reached. Use graphs to assist your explanation. What condition must be satisfied in order for the median voter model's outcome to be economically efficient?

4. What is the free rider problem? What is the prisoners' dilemma game? Explain the relationship between the free rider problem and the prisoners' dilemma game. What solutions are possible to the free rider problem, both inside and outside of government?

5. What is the Ricardian equivalence theorem? Explain the arguments supporting and opposing the theorem. In your explanation, be sure to make clear who bears the burden of the debt according to both sides, and the implications (e.g., regarding interest rates, investment, etc.) of both sides of the equivalence theorem argument. Use graphs to help explain how each side views the burden of the debt.

6. Explain Niskanen's theory of bureaucracy. Include in your discussion the incentives facing bureaucrats and the compare the characteristics of bureaucratic output to output in the private sector.

7. Presently the social security tax is shared evenly between employers and employees. Explain, using graphs, what difference it would make if the entire tax were paid by employees as compared to the case where the entire tax is paid by employers. Be sure that your answer clearly compares all of the results of the two cases.

8. Compare the effects of placing a per unit tax on the demanders in a market as compared to placing a tax of the same magnitude on suppliers. Carefully compare who bears the burden of the tax in each case, using graphs to illustrate the comparison. In general, how can one determine what proportion of the burden of a tax will be borne by demanders and what proportion will be borne by suppliers?

9. What is a value added tax? Explain how the amount a taxpayer owes is calculated under a value added tax. Compare a value added tax to a sales tax. Be sure that your comparison includes both the burden of the tax in each case and the administrative aspects of each tax.

10. Compare the Haig-Simons definition of income to the Fisher definition. Give an example that illustrates the difference between the two definitions and explain how much income in your example would be taxable under each of the definitions.

11. Congressional decision-making tends to resemble a distributive game in that each member of congress tries to get special interest programs passed rather than those in the general public interest.a) Explain why this is so. b) Show how this type of situation could lead to a cyclical majority, using a numerical example if possible. c) Explain why such cycles are rarely observed in the real world. d) Explain how this situation could lead to a unanimous coalition in which each

member would be better off outside the coalition. Why would someone vote for something that would make him worse off than the status quo?

12. Some reasons why resources could be allocated inefficiently by the market are negative externalities, positive externalities, and collective consumption goods. Explain, using graphs, what the problem is in each case, and explain possible solutions to each problem. All of these problems might be described as arising due to poorly defined property rights. Explain the relationship of property rights to these instances where the market fails to allocate resources efficiently.

13. Philosopher John Rawls has argued that a fair society is one that would be approved of from behind a veil of ignorance. Explain what Rawls means, and more generally, explain the contractarian idea of fairness. Next, explain Pareto's concepts of social welfare and compare Rawls' vision of the social welfare with Pareto's.

14. Give a thorough explanation of the condition for economic efficiency in the production of a non-rival consumption good. Assuming that majority rule chooses the outcome most preferred by the median voter, what condition would have to exist for the outcome selected by majority rule to be efficient? What is the relationship of this condition to Lindahl equilibrium? Use graphs to help your explanation.

15. Explain how a corrective tax can eliminate the inefficiency caused by a negative externality. Use a graph to assist your explanation. Why does the optimal tax promote the efficient use of resources? After the tax is collected, should the money be paid in compensation to those who are harmed by the externality? Explain the pros and cons of compensating those harmed by an externality.

16. What is the excess burden of taxation? Why is there an excess burden, and what factors affect the size of the excess burden for a specific tax? If several goods are to be taxed, how should the taxes be distributed to minimize the excess burden of taxation?

17. What is a collective consumption good? Explain how the efficient level of production for a collective consumption good is determined, and why the market will not produce the efficient level. Relate the concept of the collective consumption good to Lindahl pricing, and explain the advantages of Lindahl pricing for collective consumption goods. You may use graphs to assist in your explanation.

18. With regard to efficiency in collective decision-making, the unanimous decision rule is analogous to market exchange in private sector decisions. Explain why this is so. Given this special status accorded to unanimity, can majority rule ever be efficient? Discuss the situations in which unanimity rule is required for efficiency and when less than unanimous approval in collective decision-making could be efficient. Use graphs to assist in your explanation.

19. During the 19th century, buffalo were hunted almost to extinction in western America, while the population of cattle grew substantially. During this period, however, people were killing and consuming far more cattle than buffalo. Explain why the buffalo population was declining but the cattle population was growing under these circumstances. Next, explain why the principle that describes the decline in the buffalo population also explains why many contemporary American cities have so much air pollution. What are some possible solutions to problems such as pollution and the potential extinction of animal species?

20. Explain the relationship between Lindahl equilibrium and efficiency in the production of a collective consumption good. Does Lindahl equilibrium necessarily imply that the good is being produced efficiently? Does efficiency in the production of the good necessarily imply Lindahl equilibrium? How is Lindahl equilibrium beneficial to the political process of agreeing on the quantity of public sector output? Use a graph to illustrate your answer.

21. Discuss the way that saving is taxed under an income tax and a consumption tax. Which is more efficient? Why? Which is more equitable? Why? In your explanation, be sure to discuss how some tax systems place a double tax on saving.

22. Explain how a subsidy can eliminate the inefficiency caused by a positive externality. Use a graph to assist your explanation. Why does the optimal subsidy promote the efficient use of resources? Does the existence of a positive externality necessarily imply that a subsidy is needed for the efficient allocation of resources? Distinguish between marginal and inframarginal externalities in giving your answer.

23. Some critics of the current tax structure in the United States argue that there is a double tax on saving and that the tax structure should be overhauled. Others argue that taxes on saving should be higher. Explain and evaluate the argument that there is a double tax on saving. As a result of your explanation, do you think that the current tax structure should be changed? Give an economic justification for your opinion.

24. Explain the demand-revealing system of voting proposed by Clarke, including the way in which his "Clarke taxes" help to make the system work. In what respects would the Clarke system be better than simple majority rule? In what respects would it be worse?

25. What is the prisoners' dilemma game? Explain what outcome you would expect to see in a prisoners' dilemma game if (a) the game is played only once, or (b) if the game is played repeatedly with the same players. Both the prisoners' dilemma game and the Coase theorem consider the way that individuals interact when there are possibilities for mutual benefit. Relate your discussion of the prisoners' dilemma game to the Coase theorem.

26. A market economy can operate only if the rights of individuals are protected. Explain why. What are the three institutions of government that protect individual rights? Briefly explain the function of each institution.

27. What is a natural monopoly? Explain, using a graph to assist, the theory behind regulating a natural monopoly for the public benefit. Are there many examples of natural monopolies in the real world? How did most monopolized industries come to be monopolized?

28. Explain how the Social Security program is financed, making sure to distinguish between funded and pay-as-you-go systems in your discussion. What are the economic consequences on saving and investment from funding Social Security as we do today? Use a graph to assist your explanation.

29. What is the common pool problem? Discuss how the problem can be solved, making sure to distinguish solutions that might apply to small groups from solutions that apply to large groups. Why would potential solutions to the common pool problem for small and large groups be different?

30. Income taxes and property (or wealth) taxes tax two different elements of the same tax base. Explain why this is so, giving a simple example to illustrate your explanation. Within this framework, explain the logic of taxing imputed rental income on owner-occupied housing, and explain how the tax system currently deals with this issue of imputed rental income.

31. Redistribution programs might be pursued to promote greater equality, or might be pursued to help alleviate the problems of poverty. Discuss the merits of these two different goals. Do you think that one goal would be favored over the other from behind a Rawlsian veil of ignorance? Redistribution might take place through cash transfers, or might take place through in-kind redistribution. Discuss these two methods of redistribution as ways of addressing the goals of greater equality and alleviation of the problems of poverty.

32. Assume that a redistribution program is instituted which guarantees a certain minimum income. The program pays people the guaranteed amount if they earn no income, and reduces the amount people are paid by $.50 for every $1.00 of income earned. How would this program affect the incentive to earn income? Will low-income people necessarily have higher incomes with this program than without it? Use a graph to illustrate the points in your answer.

33. Two alternative ways of taxing real estate are site value taxation and taxation based on assessed value. Explain the differences between these two types of taxation. Which type of taxation will have the lower excess burden? Why?

34. Explain the differences between fixed quantity subsidies and excise subsidies, using graphs to help illustrate the differences. Which of these two types of subsidies is likely to have the greatest effect on the allocation of resources? Why? Would the recipient be better off with an excise subsidy or a fixed quantity subsidy of the same amount? Explain, using a diagram to help your explanation.

35. What is a collective consumption good? Explain how the efficient level of production for a collective consumption good is determined, and why the market will not produce the efficient level. Relate the concept of the collective consumption good to Lindahl pricing, and explain the advantages of Lindahl pricing for collective consumption goods. Use graphs to assist in your explanation.

36. Two categories of public goods are non-rival consumption goods and nonexcludable goods. Discuss the similarities and differences between these two types of goods. If a good is non-rival in consumption, does that mean that it is also nonexcludable? If a good is nonexcludable, does that mean it is non-rival in consumption? Why might the market produce non-rival goods inefficiently? Why might the market produce nonexcludable goods inefficiently?

37. The food stamp program provides stamps worth a certain fixed amount to buy food, and allows recipients to spend more on food if they desire. Explain both the distributional and allocative effects of the food stamp program. Use a graph to assist in your explanation.

38. The food stamp program provides stamps worth a certain fixed amount to buy food, and allows recipients to spend more on food if they desire. (a) If the recipient wants to buy more food than could be purchased with food stamps alone, would the recipient be better off receiving cash rather than food stamps? (b) If the recipient wants to buy less food than the amount that could be purchased with the food stamps, would the recipient be better off with cash rather than food stamps? (c) Assume that $2 worth of food stamps can be sold for $1. Would the recipient in part (b) be better off selling some food stamps? Illustrate your answer to all three parts of the question using graphs.

39. Explain the cyclical majority, as it applies to democratic politics. What condition must be present for a cyclical majority to occur? Is a cyclical majority more likely to occur in large groups of voters (electing a president, for example) or small groups (congressional voting)? What difference does the size of the group make to the likelihood of a cyclical majority?

40. Assume that a per unit tax is placed on the supplier of a good. Explain the factors that determine how much of the tax is borne by the supplier and how much can be shifted to the demander. Also explain what determines how large the excess burden of the tax will be, and what relationship, if any, exists between the shifting of a tax from one side of the market to the other and the size of the excess burden of a tax. Use graphs to help illustrate each component of your answer.

41. Public schools are financed by tax dollars and provide a certain level of education for every student who enrolls. The tax cost for the public school is the same whether one chooses to go to

public school, or go to private school, so students going to public school receive a subsidy equal to the tax cost of providing the public education. Are students who go to public school better off than if they chose to attend private school? Does the subsidy to public school students cause them to consume more education? Use a graph to help illustrate your answer.

42. Public housing provides a certain level of housing to eligible individuals at a reduced cost. For simplicity, assume that public housing is available to eligible individuals free of charge. If an individual chooses to accept the public housing, (a) will the individual be better off than if the public housing had not been available? (b) Will the individual live in better housing than if the subsidy were not available? Use graphs to help illustrate your answer.

43. Income transfer programs provide income to individuals with low incomes, but the benefits are reduced or eliminated as individuals' incomes rise. For simplicity, assume that individuals receive a certain guaranteed level of income if they have no earned income, but as their earned income rises, the amount of transfer income falls, and the transfer eventually is eliminated at a certain level of earned income. (a) Will recipients be better off participating in the transfer program as compared to not participating? (b) Will recipients have a higher level of dollar income if they participate in the program? Use graphs to help illustrate your answer.

44. Two characteristics of publicness in goods are nonexcludability and jointness in consumption. Define each characteristic, making sure to clearly differentiate them. For each characteristic, explain why in theory markets may fail to allocate good efficiently. Explain what type of government intervention might be called for in each case, and why. Then explain the inefficiencies inherent in government intervention in each case.

45. Education produces a positive externality, and this has been used as a justification for having the government subsidize education to internalize the externality. Explain the argument for the subsidy. Just because a positive externality exists does not mean that a subsidy will be efficient, even in theory, however. Explain the theoretical arguments that a subsidy may be inefficient, even when a positive externality exists, using graphs to illustrate your arguments. After examining the arguments on both sides, which side is more plausible to you? Should education be subsidized?

46. Assume that a good is taxed 25 cents per unit, and that the tax rate is doubled to 50 cents per unit. How will the revenues collected by the tax change as a result of a doubling of the tax rate? How will the excess burden of the tax change? Use a graph to help illustrate your answer.

47. Consider an excise tax put on a good in a competitive market. What happens to the amount of tax revenues collected as the tax rate on the good is increased? Explain the relationship between tax rates and tax revenues, illustrating your points graphically.

48. Discuss how the federal government budget has evolved since 1960. (a) What percentage of national income is expended by the federal government? How has this changed over the years? (b) What are the major components of federal expenditures? How have they changed over the years? (c) What are the major components of revenues? How have they changed over the years? (d) What, if anything, would you like to see changed in the federal government's budget? Why?

49. Two types of federal grants to local governments are categorical grants, which provide a fixed sum of money for a specific purpose, and matching grants, in which the federal government matches the amount that local governments spend for a specific purpose. Describe the differences in the effects of these two types of grants. If the same amount of money is given, which type of grant gives the local government the incentive to spend more? Use graphs to illustrate your answer. Describe the flypaper effect and explain its relevance to local government expenditures that result from a federal grant.

50. How can a redistributive program be designed to help those in need, but still give recipients an incentive to become self-supporting? Using a negative income tax to illustrate your points, explain what trade-offs are involved in designing an effective redistribution program. Illustrate your ideas graphically. If you could redesign the government redistribution system, how would your ideal system deal with these trade-offs?

51. Explain the Ramsey rule. What are the arguments in favor of using the Ramsey rule to determine tax rates? What are the arguments against it? Considering the political environment within which tax laws are determined would you favor or oppose trying to make more use of the Ramsey rule to set tax rates?

52. Explain the relationship between quotas and tariffs as methods of restricting imports. Use a graph to assist your explanation. If either a tariff or a quota is going to be used to restrict imports by a certain amount, explain what groups would favor tariffs and what group would favor quotas, and why.

53. The Tiebout hypothesis suggests that producing public goods locally can be more efficient than producing them at a higher level of government. Explain why this is so. List and discuss some of the advantages of local public good provision compared to provision by higher level governments, and some of the disadvantages.

54. Explain the differences between inframarginal externalities and externalities that are relevant at the margin. Use graphs to help assist with your explanation. Some people have argued that education should be subsidized because it creates a positive externality, while others have argued that there is no efficiency reason for subsidizing education. Use the concept of inframarginal externalities to explain the arguments on both sides of this issue.

55. Explain the difference between technological and pecuniary externalities. To efficiently allocate resources, how should public policy deal with technological externalities? To efficiently allocate resources, how should public policy deal with pecuniary externalities? When are pecuniary externalities most relevant to public policy, and why are they relevant?

56. Explain the difference between the concepts of Pareto optimality and Pareto superiority. If a policy change moves the economy from a non-Pareto optimal situation to a Pareto optimal situation, does this necessarily imply an improvement in social welfare? Explain your answer, and illustrate it in an Edgeworth box diagram.

57. Throughout its history, the United States has had a two-party political system, even though there is nothing in the Constitution that even mentions political parties and there is no law that prevents additional parties from forming. Indeed, despite many small minor parties, the political system continues to be dominated by two major political parties. Explain why this is so. What changes would have to be made the the U.S. political system to make more parties politically viable. Illustrate the points you make to answer the question in a graph

58. In the private sector, economists have characterized firms as profit maximizers and developed a theory of markets based on that assumption. Typically, governments do not sell their output and there are no profits and losses from government production. What movitation for production in government bureaucracies is analogous to profit maximization in the private sector? Discuss the incentives that face bureaucrats, the environment in which their budgets are determined, and how resource allocation through government bureaucracies compares with resource allocation in markets.

59. Jet aircraft taking off and landing at commercial airports generate an externality because the noise they make disturbs those on the ground in close proximity to the airport. One way to deal with the externality would be to tax the airlines. Explain how the optimal tax would be designed, and why it would be effective at reducing the external cost. Use a graph to explain the design of

the tax. Should the revenue collected from this tax be paid to those who own property below to compensate them for the harm they suffer? Discuss the advantages and disadvantages of using the revenue from the tax to compensate those on whom the aircraft noise is imposed.

60. Describe the bureaucratic bargaining process in which government agencies negotiate with Congress to determine the agency budget. What incentives face both those in the agency and those in Congress? How will the agency budget compare with what a competitive industry would produce? Using a graph, compare bureaucratic output with output in competive and monopoly industries.

61. With increasing awareness of long-term problems with petroleum supplies there has been some discussion of increasing the per-gallon tax on gasoline. One Senator, representing an oil-consuming state, advocates placing a per-gallon tax on the suppliers of gasoline, supporting the tax but saying that overburdened consumers deserve a break. Another Senator, representing an oil-producing state, says that energy suppliers are burdened enough already and that we do not want to create further disincentives for producers, so the tax should be placed on the demanders. Explain, using graphs to illustrate your answer, what difference it would make whether a per-gallon tax on gasoline was placed on the suppliers of gasoline or on the demanders.

62. Critics of Walmart argue that when the company opens stores in small towns, it tends to harm small locally run businesses, creating an externality. Explain how this externality is created, and discuss the public policy options to deal with it. What is the appropriate public policy (you may discuss more than one policy if you want), and why is the policy (or policies) you suggest appropriate?