***Public Finance (PAF3531)/Public Economics 1 (ECN4121)***

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***Term Paper***

***October 16, 2024***

***November 20, 2024***

For this assignment, you may work in groups of up to Five students. You are advised to start the assignment as soon as possible. Do not hesitate to ask me questions as you are working on this assignment. Answers should be typed with Times New Roman size 12 fonts.

1. Use examples to illustrate the following statement: “Pareto optimality does not equate social optimality.” (2 points)

1. A community project (a public good) has the following costs and benefits for its members: (2 points)

Individual benefits ($) Cost share ($)

A 750 500

B 700 500

C 300 500

D 350 500

E 450 500

F 400 500

G 600 500

H 650 500

J 500 500

1. Is the project economically feasible? Explain
2. Will the project be approved by a majority of the community? Explain.
3. Does the project meet the Pareto criterion? Explain.
4. Is there any member of the community that is indifferent to the cost and benefit? Why?
5. If possible, revise the cost shares to allow the project to meet the Pareto criterion and be approved by a majority of the community.
6. Explain and illustrate the third type of efficiency needed for Pareto to occur. From the diagram drawn on this type of efficiency, explain why utility is not maximized by the indifference curve inside the PPF. (2 points)
7. Go about your normal activities and record all the public services you use. Prepare a list of the activities (**about 6**) and indicate how rivalrous and excludable they are on a scale of 1-5 (1 being highly rivalrous, and 5 being non-rivalrous). Indicate your reasons. You may use the following format: (2 points).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| # | Service | Rivalrousness | Reason | Excludability | Reason |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. Explain why it is necessary for the government to have each of the following (in terms of market failures). (2 points)
2. Seat belt requirements for cars
3. Requirement for emission checks on cars
4. Unemployment compensation
5. National Defense
6. Truth-in-lending laws
7. Government ban on the use of illicit drugs

1. Explain why each of the following is or is not likely to be a Pareto improvement: (3 points)
2. Building a park, financed by an increase in the local property tax rate.
3. Building a park, financed by the donation of a rich philanthropist. The city acquires the land from a local resident and compensates the resident at true market value.
4. Increasing medical facilities for lung cancer, financed out of general revenues.
5. Increasing medical care facilities for lung cancer, financed out of an increase in the cigarette tax.
6. Eliminating rent control laws.
7. Assume you are shipwrecked, and there are **11** of you in a lifeboat. It will take **10 days** to reach your shore and there is enough food for **6** of you to survive for **10 days.** (2 points)
8. How would a utilitarian allocate the available food?
9. How would a Rawlsian allocate the available food?

1. The government rations a variety of publicly provided private goods and impure public goods in which there is congestion in a variety of ways. Discuss how each of these is rationed to limit economic distortions. (2 points)