

NAME _____
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No Aid; No Violations

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Quiz #2 Economics 222

PLEASE SHOW ANY CALCULATIONS IN ORDER THAT YOU MAY BE REWARDED PARTIAL CREDIT.

Part I: Carefully DEFINE and explain the SIGNIFICANCE of THREE (Only 3) of the following 4 concepts in your blue book (About one page each).

1. Tax expenditure
2. Moral hazard
3. Progressive tax
4. Earned Income Tax Credit

Part II: Answer TWO (only 2) of the following four questions:

1. In the State of Middletown the tax paid by each citizen is determined by the following equation:

$$T = -\$21,000 + 0.3 Y,$$

where Y is before tax income.

Determine:

- a. The marginal tax rate that would be paid by a citizen with before tax income of \$20,000.
- b. The average tax rate that is paid by a citizen with before tax income of \$20,000.
- c. The break-even level of income.

Would you say that this tax is “progressive” or “regressive”? Explain.

2. In Madison, Connecticut, real estate was last assessed in 1990; an 80% assessment rate was employed; the mill rate for 1999 has been set at 40. If you had purchased a house in Madison in 1990 for \$200,000, how much property tax would you have to pay in 1999?

3. The State of Connecticut is considering a hydro-electric power project that will yield \$20 million in net annual benefits forever more. It will cost \$300 million to construct the project.
 - a. It has been suggested that the project should be financed by issuing \$300 million in government bonds. The state is currently paying 5% interest per annum on its outstanding debt. What will be the resulting benefit/cost ratio for the project if it is financed at 5%?
 - b. Surprise, before the project can be approved, inflation rears its ugly head. It is anticipated that prices will rise by 5% per year forever more. Worse yet, the interest rate on government securities has increased to 10%. How will the Benefit/Cost ratio be affected by these developments? Should the state still undertake this project? Explain.
 - c. Forget about the inflation. Suppose that the governor decides that instead of borrowing to pay for the construction of the power project, it can be financed out of payments to be made to the state by the tobacco industry as the result of an out of court settlement. Explain if and how this will affect the benefit/cost ratio for the project.

4. A new welfare program established in Never-Never Land will pay each citizen \$30 per day. However, each citizen's benefit will be reduced dollar-for-dollar by the income earned by the citizen, up to \$30; if the citizen earns more than \$30 the welfare payment will be zero.
 - a. Draw an appropriate graph showing how the leisure-work choice of a citizen earning \$10 per hour would be affected by this program.
 - b. Add an indifference curve to the graph showing how the work-leisure choice might be affected by the program.