NAME _____

Sign the pledge:
No Aid; No Violations

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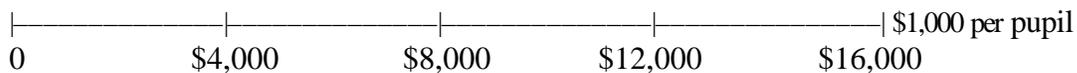Mike Lovell
April 11, 2000

Economics 222: Quiz #2

Please show any calculations in order that you may be rewarded partial credit if you should make a numerical error.

Part I: Here are four pairs of concepts. For three (only 3) of the four pairs, please (#1)define each concept and then (#2) explain their essential similarities and differences:

     1.   Medicaid versus Medicare

     2.   Negative Income Tax versus the Earned Income Tax Credit

     3.   Average Indexed Monthly Earnings versus the Primary Insurance Amount

     4.   AFDC versus TANF

Part II: Answer THREE (only 3) of the following four questions:

1. The voters of Durham are to decide at Town Meeting how much they will spend per pupil on education during the 2000-2001 school year. The graph shows the distribution of voters preferences on this issue:

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|——————————|——————————|——————————|——————————| $1,000 per pupil
0          $4,000     $8,000     $12,000    $16,000
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According to the theory of Harold Hotelling [1929] and Anthony Downs [1957], how much will the voters decide to spend per pupil? Explain carefully.

(Tip: In interpreting the graph note that approximately 25% of the voters would prefer to spend less than $8,000 per pupil and 25% would prefer to spend more than $12,000.)

2. Anthony Downs argues that uncertainty and incomplete knowledge fundamentally affect the functioning of the democratic system. Explain the major affects that he describes.

3. A new system of locks proposed for the Mississippi is estimated to cost $500 million. According to the Corp of Army Engineers, the locks will cost $15 million per year to operate (including maintenance) and will yield estimated annual benefits of $60 million.

    a. Calculate the benefit/cost ratio for this project. Assume that the project is expected to last forever more and that the rate of interest on long-term government bonds is 5%. Explain your calculations.

    b. Listed among the benefits of the project are the increased profits for farmers because they will be able to ship their grain on the Mississippi of $10 million plus an estimated increase in the value of the farm land of $400 million. How should these benefits be counted in evaluating the project? Explain

    c. Since the project estimates were calculated, OPEC has led to a resurgence of inflation. The overall level of prices is expected to rise by 10% per annum forever more. How would you expect the anticipation of inflation to affect the interest rate that will have to be paid on funds the government will borrow to pay for the construction of the locks? Explain if, why, and how the benefit/cost ratio should be adjusted in order to take the inflation into account?

4. The Census Bureau estimates that 13.3% of the population of the United States had an income below the Poverty Level ($12,802 for a three-person household) in 1997.

    a. Explain how the poverty level of income is estimated?

    b. Explain if and how an increase in the Earned Income Tax Credit or a decrease in the Social Security tax rate would affect the official poverty rate.