Final Exam
(100 points)

(5 pts) 1. Identify an item that most people would consider to be a public good, and clearly explain why it is not a public good.

(8 pts) 2. Provide two examples, one of a technological externality and one of a pecuniary externality. Explain why your examples qualify.

(12 pts) 3. First, under what circumstances would it be appropriate to compute equivalent surplus? Second, provide a formula for equivalent surplus.

(16 pts) 4. There are two usable procedures for gaining exact welfare measures using ordinarily available market data. What function(s) does each start with and what is the step-by-step procedure for each?

(24 pts) 5. Justify the accuracy and relevance of the following quote by discussing, linking, and extending the important concepts. Organize your discussion well.

"One way of going beyond the Pareto principle in making social welfare judgments involved the so-called compensation tests. The basic idea here is to compare two Pareto-incomparable alternatives by considering the possibility of the gainers compensating the losers in the move from one state to the other."

6. A regional industry is composed of 16 y producers, and a representative firm in this industry has the production function $y = 2x^{1/2}z^{1/4}$. The regional supplies of inputs x and z are given by $p_x = 4$ and $p_z = 16$. Total demand for the output of this industry is given by $y_D = \frac{1}{p}$ where p is the price of y. A "price support" policy currently exists for y. According to this policy, $p = 5$.

There is a policy proposal to be evaluated. This new policy would establish a revised price support policy in which $p = 7$.

(30 pts) a. Perform all practically computable policy analysis. Also, as a check on your calculations, compute the producers welfare impact in at least two ways, neither of which computes $\Delta\pi$ using a profit equation.

(5 pts) b. Summarize your findings and provide a discussion of these numbers so that a decision-making committee can properly understand these results.