

Second Exam

Write all answers in your blue book and show all work there.  
Return your exam in your blue book.

18 pts.

- 1) Suppose that price goes up and the quantity demanded goes up too.
- Is this theoretically possible? Use utility models that we've studied to show if it's possible or not.
  - Be sure to identify the substitution and income effects in your work.

10 pts.

- 2) Draw a well-labeled diagram that shows:
- Why it is unprofitable to produce past the point where  $MR=MC$ .
  - Why it is inefficient to produce past the point where  $P=MC$ .

22 pts.

- 3) If  $Q = L^{1/3}K^{2/3}$  and  $P_L = 4$  and  $P_K = 5$ ,
- Find the  $MP_L$  and  $MP_K$ .
  - Find the MRTS.
  - Find the cost minimizing K/L combination to produce 684 units of Q.
  - Describe the returns to scale present here. Is this a long run or short run concept? Why?
  - Draw the LRAC results from this production function.

18 pts.

- 4) Use a well-labeled diagram to show the effect of an increase in demand on price in the long run and the short run in an increasing cost industry.

18 pts.

- 5) Suppose that to control health care costs, a price ceiling is imposed on the wages of doctors and nurses.
- Use a well-labeled diagram to show and describe the consequences of such a policy.
  - Would the problem you describe be worse or better in the long run? Why?

14 Pts.

6. Sketch an Edgeworth box where there are
- Two people, A and B, where A has much higher income and
  - Both are maximizing utility and
  - There are equilibrium competitive prices.

I have neither given nor received unfair aid on this test nor am I aware of anyone else who has.

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