Econ 3303 Intermediate Microeconomics

## Second Exam

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

21 pts.

1) Suppose that as Hong Kong grew rich, rice changed from a normal good to an inferior good. What will happen to the price elasticity of demand as a consequence of this? Make your case using an indifference curve diagram where rice is on one axis and all other goods is on the other.

16 pts.

2) Joe is half done with the requirements for his major, but the courses have been twice as hard as he thought that they would be, effectively doubling his cost in terms of time and anxiety. He expects the remaining courses to also be twice as hard as originally expected. Originally, he thought the benefit of his major would justify the work required. But now with the cost twice as high as anticipated, he is having second thoughts. Assume that the courses for his major don't count toward other majors and that his view of the benefits of the major haven't changed. Describe the judgment that he needs to make in his decision regarding his major, paying close attention to matters of sunk and variable costs.

21 pts.

- 3) If  $Q = KL^{1/2}$ .
- a) What name do we have for such a production function?
- b) What kind of returns to scale does the production function have? Why?
- c) Find the cost minimizing levels of L and K, when  $P_L = 2$ ,  $P_K = 1$  and Q = 100.

21 pts.

4) Consider the following isoquant map.



- a) What name do we have for such a production function?
- b) What kind of returns to scale does the production function have?
- c) If  $P_L = 2$  and  $P_K = 1$ 
  - c1) draw a well-labeled SRMC curve when K = 2
  - c2) draw a well-labeled SRAC curve when K = 2
  - c3) draw a well-labeled SRTC curve when K = 2

- c4) draw a well-labeled LRMC curve
- c5) draw a well-labeled LRAC curve
- c6) draw a well-labeled LRTC curve

21 pts.

5) Use a well-labeled diagram to show

a) the SR and LR effect of an increase in wages on P and Q in a constant cost competitive market.

b) What happens to the number of firms in the SR and LR in part a?

c) How does your answer change in part a, if the wage increase enriches a substantial portion of the industries customers?

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

\_\_\_\_\_