Econ 3303 Fall 2014
Intermediate Microeconomics R. Claycombe

Second Exam

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

16 pts.
1) The A Corporation spent 1000000 on equipment for production of good X. The revenue from good X sales over the lifetime of the equipment will be 2000000 and the variable cost 1500000.
a) If A corp had known these values before purchasing the equipment, would it have done so? Why?
b) Given the figures above, should A corp sell the good X in the short run? Why?
c) What additional info is needed to say what long run policy should be?

18 pts.
2) Suppose $Q = 100L^{.75}K^{.5}$
a) Calculate MP_L when K = 25 and L = 81.
b) Calculate MRTS when K = 25 and L = 81.
c) If $P_L = 3$ and $P_K = 2$, find the cost minimizing K\L combo for Q = 400.
d) Describe the returns to scale in a word and say what this means in a few more.

16 pts.
3) a) Draw a well-labeled diagram that shows the effect of an increase in FC in the long run in an increasing cost perfectly competitive market.
b) Now say what this increase in FC will do to price in the short run.

16 pts.
4) Draw a well-labeled diagram that shows the effect of a subsidy on P and Q in a competitive market. Label the area of DWL and explain what DWL is.

18 pts.
5) a) Draw a well-labeled diagram that shows the effect of a price ceiling on P and Q in a competitive market. Label the diagram showing the DWL, PS, CS and gain from trade before and after the ceiling.
b) Give an example of such a ceiling and use the diagram to show how things get worse in the long run.

16 Pts.
6. a) Find a partial derivative of $U = X^aY^b$ and explain what is assumed about the other variable when the differentiation is done.
b) Explain what a total differential is and how it relates to an isoquant or indifference curve.

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

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