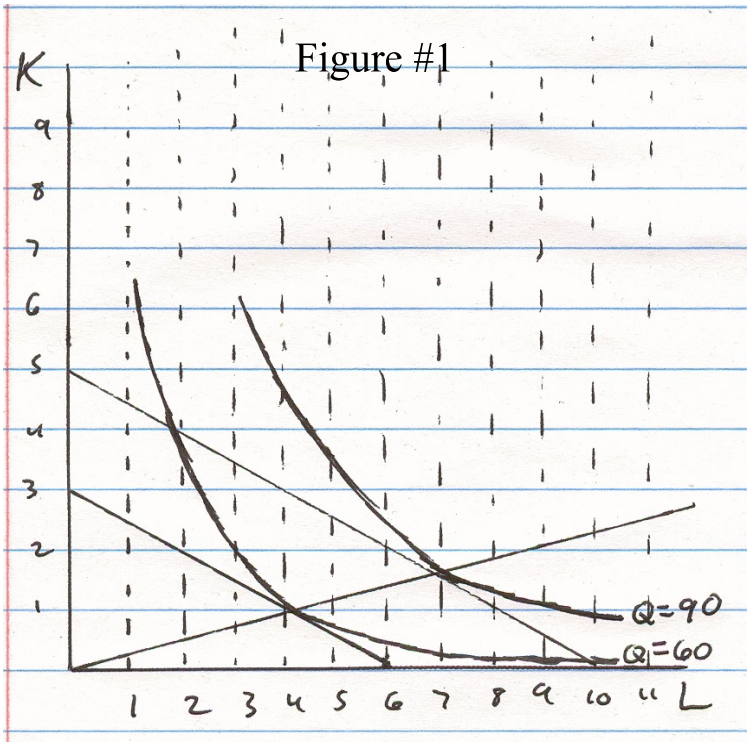
Wilfrid W. Csaplar Jr., Ph.D. Economics 301 Exam #4 2014/12/1

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 170 points) and is scheduled to take 50 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I cannot give extra time because some students have a class after your class.

1) (8 points each) Use Figure #1 to the right to answer THREE of the following parts. Assume the isocost line closer to the origin is TC = 48.
A) What are the wage and rental rates? Briefly explain your logic and show all calculations.
B) What should the upward sloping line be labeled? Does this graph exhibit increasing returns to scale, constant returns to scale, or decreasing returns to scale? (Assume the upward sloping line is a straight line and goes through (0,0), (4,1), and (8,2).) Briefly explain your logic and show all calculations.
C) Suppose you have 3 units of capital. How much are your short-run total costs for producing 90 units? Briefly explain your logic and show all calculations.
D) What are your long-run total costs and long-run marginal costs of producing 90 units. Briefly explain your logic and show all calculations.



2) (18 points) Answer ONE of the following parts.
A) Draw the *Learning Curve*. Explain why it takes it shape.
B) Draw the LRATC/SRATC/LRMC/SRMC diagram with only one SRATC and only one SRMC. Briefly explain why it takes its shape.
C) Suppose that producing televisions alone costs $100/tv, producing computer monitors costs $80/monitor, and producing one of each at the same factory costs $200/pair. Calculate the economies or diseconomies of scope. Show all work. What does that number tell you?

3) (18 points) Answer EITHER Part A OR Part B.
A) Draw the long-run supply and demand for a perfectly competitive increasing-cost industry. Find the consumer surplus and producer surplus. Briefly explain how you found them and why the graph looks as drawn.
B) Draw the ATC/AVC/MC/D diagram with the price at the shutdown price. Explain why that is the shutdown price.

4) (40 points) Answer EITHER Part A OR Part B.
A) Draw a firm's ATC/AVC/MC diagram and beside it the industry's $S_{SR}/S_{LR}/D$ diagram. Draw it such that the firm is making negative profits but staying open. Show their losses on the graph. Explain how you found the losses. Illustrate what happens over time. Explain why the curve(s) moved over time. Assume a constant cost industry.
B) Draw a firm's ATC/AVC/MC diagram which is in the long-run equilibrium. Beside it draw the industry's $S_{SR}/S_{LR}/D$ diagram. Draw an increase in demand for the industry. Illustrate what will happen over time if the industry is a constant cost industry. Explain why the curve(s) moved as drawn.