Econ 3324   Spring 2011
Managerial Economics   R. Claycombe

Second Exam

Write all answers in your blue book and show all work there. Return your exam and printout(s) in your blue book.

14 pts

1) a) Draw a well-labeled diagram that depicts how shifting supply and demand curves make it difficult to estimate either supply or demand curves. Show an example of one of the two being identified.
b) Describe how regression methods help with the problem.

14 pts.
2) Suppose that you have the following print out:

$R^2 = .80$	Adj $R^2 = .78$	SE = .024	
	B	t	p
(Constant)	135820.760	.048	.962
Price	-274954.128	-4.846	.000
OurAdvertising	8.534	10.191	.000
CompAdvertising	2.848	2.148	.050

a) Use what you have here to say how good the model seems and which variables are highly correlated with the dependent variable.
b) Do any of the variables have unexpected signs for slope? Explain.
c) Could an omitted or misspecified variable cause the part b problem? Explain.

15 pts.
3) Suppose that
$$Q = 100L^{.3}K^{.3}E^{.3}M^{.4}$$
and P = 10, P_L = 5, P_K = 4, P_E = 3, P_M = 2

a) Given these numbers, which resource will be used least intensively? Why?
b) If K=E=M= 10, what is the profit maximizing L?
c) Describe the returns to scale here.

15 pts.
4) Suppose that we produce product A and that it requires components B and C. The subdivision of the company that produces B has MC (for A, associated with B) of $MC_{A,B} = 10 + Q_A$. MC (for A, associated with C) is simply $MC_{A,C} = 490$. The demand for A is Q = 11000 – 2P.
a) Find the profit maximizing P for A.
b) What is the transfer price that will be paid to the subdivision that produces B?

14 pts.
5) Suppose that you have cost data like this:
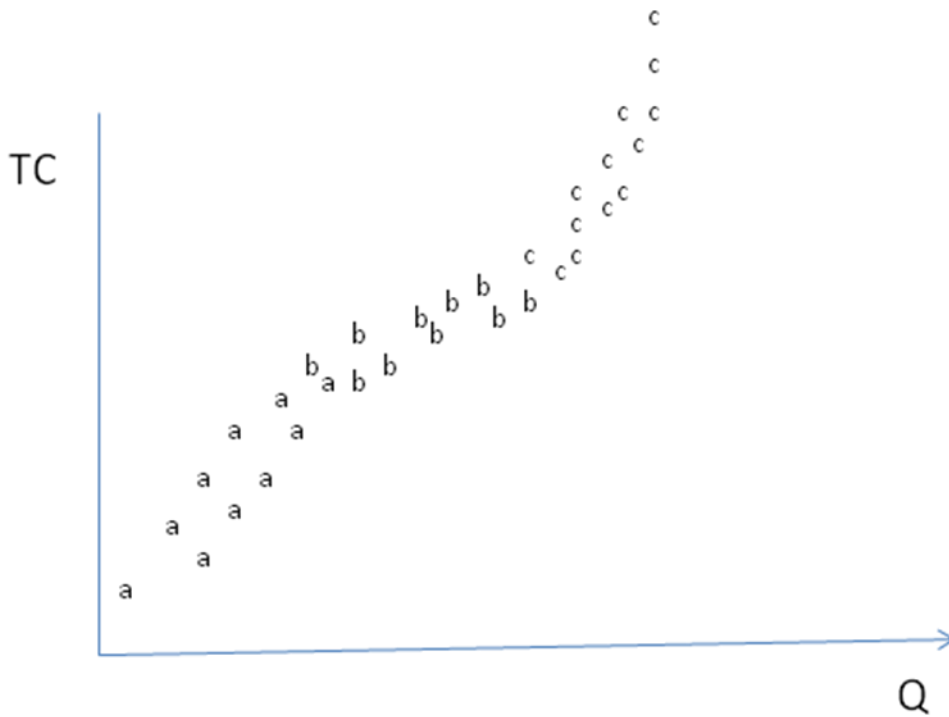
a) If you have only the "b" observations what cost equation will fit best?
b) If you have only the "b and c" observations what cost equation will fit best?   What warning would you give for the use of this equation.
c) If you have all the "a, b and c" observations what cost equation will fit best?

14 pts.
6) Depreciation charges for the firm show that the cost of assets is 200,000 per month. Currently, total revenue is 300,000 and variable cost is 200,000. Should the firm shut down (in the short run). Assuming that the revenue and variable costs don't change, should the firm sell it's assets as soon as possible and exit the business? What should be done if the assets will sell for 1000000 now or , if kept, will last for 20 more months?

14 pts.
7) A perfectly competitive industry has $Q_D = 3140-2P$ and 100 firms each with $TC=900+10Q+Q^2$.
a) What will price equal if we are in a long run equilibrium?
b) What will Q_D equal if we are in a long run equilibrium?
c) Are we in long run equilibrium? Why?

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

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