Econ 3324 Spring 2010
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.

20 pts

1) Briefly say why you agree or disagree with the following.
a) Simultaneous equations can be a problem when estimating demand functions.
b) Omitted variables can be a problem when estimating demand functions.
c) A regression with the highest R^2 is the best one to use.
d) The following print out shows 2 variables that are significant at the 5 % level.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	135820.760	2830384.323		.048	.962
	Price	-274954.128	56738.589	-.371	-4.846	.000
	OurAdvertising	8.534	.837	.403	10.191	.000
	CompAdvertising	-2.848	1.326	-.073	-2.148	.050
	OurSpeed	11232.624	358.913	1.629	31.296	.000
	CompSpeed	-8630.217	525.768	-1.333	-16.414	.000
	CompPrice	53708.562	41771.749	.070	1.286	.219
	Income	40523.705	40388.026	.188	1.003	.333
	Population	1479.843	14846.180	.018	.100	.922

a. Dependent Variable: QuantityDemanded

20 pts.

2) Key the following data into a spreadsheet and find the fit where Y is a function of X1 and X2.
a)

Y	X1	X2
31	2	9
28	3	7
26	4	6
28	5	6
23	6	4
20	7	2

b) Describe the results in terms of the significance of the variables and collinearity.

20 pts.
3) Suppose that

$Q = 4L - .01L^2 + 5K - .05K^2$

and $P_L = \$5$ and $P_K = \$7$

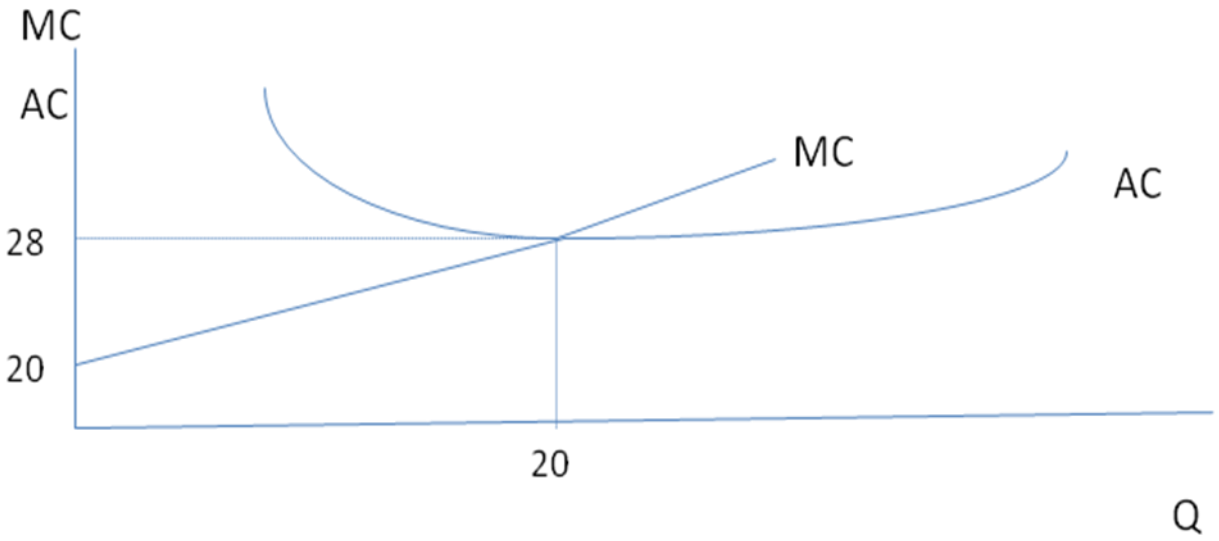
and the demand for the product is such that $P = 10 - .01Q$.

Find the profit maximizing L, K and P either using a spreadsheet or, if you can't do that, as best you can via algebra. If using a spreadsheet, include "marginal" cells that show that profit is maximized.

20 pts.
4) Suppose that your firm has $TC = 80 + 20Q + .2Q^2$

a) Do the MC and AC look like this?

Why?



b) If demand is $P = 40 - 1.05Q$, what is the profit maximizing P?

c) Is this price profitable? Why?

d) Does it appear that your capacity is too big or small? Explain.

20 pts.
5) If we have a perfectly competitive market where the market demand is $Q = 10000 - 250\ P$ and there are 50 firms with $MC = 5 + .1Q$,

a) What is the market supply curve (equation)?

b) What are the market P and Q?

c) If $TC = 100 + 5Q + .05Q^2$, is profit positive or negative? Show work. What happens in the long run in the market?

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

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