

Second Exam

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

10 pts.

1) Briefly discuss one important advantage and disadvantage of “consumer surveys” to estimate demand functions.

18 pts.

2) True or false? Why?

- a) Probably the biggest danger in demand estimation is an omitted variable bias.
- b) If two variables are collinear, it is reasonable to just leave one of the variables out of the model. Give an example.
- c) Keep adding variables to a regression until the R^2 stops going up.

24 pts.

3) Use the printout below to answer the following questions.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	490897.9	4472748	0.109753	0.91406
Q	5319.469	2803.76	1.897263	0.3362
Q squared	-5.56	3.146313	-1.85033	0.5564
Month	5.77714	2.865195	2.016317	0.027357

Dependent Variable: Total Cost
 R^2 : .550

- a) Does the regression do well explaining total cost’s variation? Why?
- b) Which variables are statistically significant ($\alpha = .05$).
- c) Are there any nonlinear effects in the model? If so, describe it or them.
- d) Are there any effects that seem wrong? If so, describe it or them.

Computer problem.

12 pts.

4) If $Q = AL^aK^b$

Use the data below to estimate the model. Print your output and hand it in with your bluebook.

Type your name into your printout.

Q	5	10	15	20	25
L	1	2	3	4	9
K	1	2	3	4	4

18 pts.

5) Suppose the production function is $Q = 10L - L^2 + 50K - 2K^2$ and that $P_L = 2$, $P_K = 3$ and $P = 10$.

- a) Find the marginal products.
- b) Find the profit maximizing levels of employment of L and K.

18 pts.

6) Suppose $TC = 180 + 20Q + .2Q^2$ and $Q_D = 200 - 5P$

- a) Find the profit max P and Q.
- b) Find the Q that minimizes AC.
- c) Should the plant be larger or smaller, everything else the same? Why?

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