First 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) a) Find the PV of $1000 paid in a lump sum at the end of one year if r = .05.

b) Find the PV of $1000 paid in a lump sum at the end of one quarter if r = .05.

c) Find the PV of $1000 paid in a lump sum at the end of two years if r = .05.

d) Find the PV of $1000 paid continuously over a period of one year if r = .05.

e) Observe the present values in parts a to d and explain why they rank as they do.

20 pts.

2) If your firm pursues Plan A, the worst possible profit is 10000, the EV is 100000 and the standard deviation is 50000. If your firm pursues Plan B, the worst possible profit is 20000, the EV is 90000 and the standard deviation is 30000. Firm policy toward risk and return is to be indifferent to plans where 10000 of expected return is matched by 15000 standard deviation (MRS= 2/3). Use 4 different decision criteria to compare plans A and B. Which criteria best takes account of risk and return? Why?

20 pts.

3) The table below shows possible profit and associated probabilities that occur at the end of each of two years. Find the expected present value and the standard deviation. (r= .06)

	Year 1	Year 2
Profit (prob)	10000(.5)	20000(.4)
	15000(.5)	25000(.6)

20 pts

4) Your firm's price elasticity of demand is thought to be 2 and last month your price was 10 dollars and quantity was 3000 units. Marginal cost is constant at about 3 dollars in the neighborhood of 3000 units. Are you charging the profit maximizing price? If not, should you increase or decrease it? Explain.

20 pts

5) a)

	Coefficients	t Stat	P-value		Regression Statistics	
Intercept	-1507.83578	-1.93658	0.070663		Multiple R	0.960231
Income	2.0101369	1.041244	0.313241		R Square	0.922043
Price	-0.03720557	-4.53607	0.000337		Adjusted R Square	0.883064
AdvExp	0.15098366	3.205128	0.005518		Standard Error	449.0154
Population	199.040182	2.969457	0.009037		Observations	25
Sub. Price	0.29086657	1.557294	0.138958			
Sub. Adv	-5.54974479	-1.16214	0.26222			

a) Review the regression output above for a demand equation and write the regression equation.

b) Which variables are highly correlated with the dependent variable (statistically significant). Explain,

c) How much of the dependent variable's variation does the model explain.

d) What is the predicted demand quantity when all the independent variables are zero.

e) Is there any evidence of collinearity that you see? Explain.

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

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