

EMBA 8400: Managerial Economics

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Georgia State University

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Name: _____

SAMPLE QUIZ

This examination consists of **2 parts**, with a maximum score of 40 points. Part 1 is TRUE/FALSE worth 20 points. Part 2 is SHORT ANSWERS worth 20 points.

Instructions

1. You have 1 hour to complete this examination.
2. The exam consists of 4 pages (including this page).
3. **PLEASE USE AN INK PEN FOR THIS EXAM.**
4. You may use a calculator during the exam. **This is an open book exam.**
5. To receive credit, **all work must be shown on the exam.** Make sure your answers are clear and legible. If you need scratch paper, use the back of the exam pages.
6. If you wish your exam to be graded, you must sign the following pledge:

"I hereby state that I have neither given nor received assistance in completing this examination. All work is my own."

Signature_____

Part 1: (20 pts.) Circle TRUE or FALSE . For each correct answer you receive 2 points.

T F 1. You trade according to the principle of "absolute advantage". (Ans: False)

T F 2. Credit cards and checks are a form of money. (Ans: False)

T F 3. Imports are an exogenous variable. (Ans: False)

T F 4. Marginal cost is defined as total cost divided by quantity produced. (Ans: False)
(Because, Marginal Cost = Change in Total Cost / Change in Quantity)

Note: This is a sample quiz, actual quiz will have 10 True or False questions.

Part 2: (20 pts.) Complete the following SHORT ANSWER questions with a graph or a brief explanation. To obtain full credit, please be neat while drawing a graph, label all parts of the graph and show all your calculations for the mathematical answers. NO CREDIT will be given for only writing down the final answer.

Sample A: The Economic Forecasting Center at Georgia State has asked its marketing person to increase subscription revenues for the *Forecast of the Georgia and Atlanta* booklet. The person is considering raising the price for the booklet. Is this a correct decision? Defend your answer using economic logic taught in this class. (5points)

This question is based upon the concept of price elasticity.

Definition: Price elasticity of demand is a measure of how much the quantity demanded of a good responds to a change in the price of that good.

So go ahead and assume the elasticity of the product.

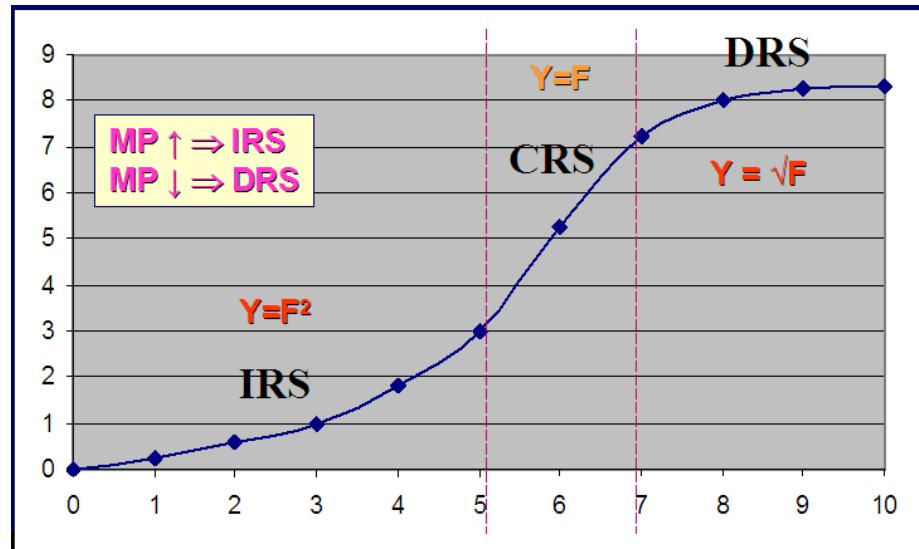
Case (a): Elastic Product – A price rise leads to a drop in revenues so never raise the price.

Case (b): Inelastic Product – A price rise leads to a rise in revenues so do the price increase.

All you have to do is pick case (a) or (b), defend your choice using some arguments (say no substitute exists for the booklet so the product is most likely inelastic) and write the correct implication.

Sample B: Define the returns to scale property of a production function in words. (3 points)

Returns to Scale: The property of the production function that when you double your inputs, your output either doubles, more than doubles, or less than doubles.



Sample C: Suppose the adult population of an economy is 60 million people, and the labor force participation rate is 60%. Currently in this economy 4 million people are unemployed.

- (a) Calculate the unemployment rate for this economy (3 points)

$$\text{Labor Force Participation rate} = \text{Labor Force} / \text{Population}$$

$$\text{Therefore, Labor Force} = 60 \text{ million} \times 0.60 = 36 \text{ million}$$

$$\begin{aligned}\text{Thus, Unemployment Rate} &= \text{No. of unemployed people} / \text{Labor Force} \\ &= 4 / 36 \\ &= 0.111 \text{ or } 11.11\%\end{aligned}$$

- (b) If the labor force participation rises to 70% during an economic boom that also reduces the number of unemployed by 2 million people, then calculate the new unemployment rate. (2 points)

$$\text{New Labor Force Participation rate} = 0.70$$

$$\text{Therefore, Labor Force} = 60 \text{ million} \times 0.70 = 42 \text{ million}$$

$$\begin{aligned}\text{Thus, Unemployment Rate} &= 2 / 42 \\ &= 0.047 \text{ or } 4.70\%\end{aligned}$$

Q3.) The following chart shows the hours required to make 1 unit of computer or TV in two countries: the U.S. and Taiwan.

Table 1

	1 Computer	1 TV
US	1.5 hrs.	8 hrs.
Taiwan	1 hr.	5 hrs.

A.) Which country has an absolute advantage in producing computers and why? (3 points)

Taiwan has absolute advantage in producing computers as it takes them less time to produce a computer than U.S.

B.) Which country has a comparative advantage in producing computers? Explain your answer using the economic logic of opportunity cost. (7 points)

The opportunity costs of producing Computers in U.S. and Taiwan are given in Table 2:

Table 2

	1 Computer
US	$1.5/8 = 0.187 \text{ TV}$
Taiwan	$1/5 = 0.2 \text{ TV}$

From Table 1, we observe that if U.S. gives up 1 computer, it releases 1.5 hours which produces $1.5/8 = 0.187 \text{ TV's}$.

In addition, if Taiwan gives up 1 computer, it releases 1 hour which produces $1/5 = 0.2 \text{ TV's}$.

Since the U.S. has a lower opportunity cost of producing 1 computer in terms of TV's than Taiwan, the U.S. has a comparative advantage in producing computers.