


**Eastern University, Sri Lanka**  
**Faculty of Commerce and Management**  
**Third Year Second Semester Examination in BBA**  
**2014/2015 (August, 2017)**  
**(Proper/ Repeat)**  
**ECN 3023: Managerial Economics**

Answer all questions

Time: 03 Hours

Define Managerial Economics. (03 Marks)

Briefly explain any three principles for managers. (06 Marks)

What is meant by price elasticity? List out the importance of price elasticity for a business. (05 Marks)

Briefly explain the ways the cross price elasticity, income elasticity assist a business unit in decision making. (06 Marks)

(Total 20 Marks)

What is regression analysis? Explain why demand estimation models are mostly estimated with regression technique. (03 Marks)

Consider the following estimated demand function for Samsung Notebook , and answer the following questions;

$$\ln QD_s = 2.345 - 1.456 \ln P_s + 2.342 \ln P_{LG} - 0.456 \ln M_s + 0.674G - 3.456 \ln T$$

(2.745)
(4.876)
(1.56)
(1.034)
(1.782)
(1.893)

where,  $QD_s$  is the quantity demand for Samsung Notebook,  $\ln P_s$ ,  $\ln P_{LG}$ ,  $\ln M_s$ , and  $\ln T$ , respectively, indicate logarithm of own price, price of LG branded Notebook, price of memory card of Samsung Notebook and the government tax on import materials.  $G$  denotes the gender of marketing officer in Samsung company (*Hint: 0 and 1 are given if the marketing officer is male and female respectively*). Computed  $t$  values are given within brackets.

Interpret each coefficient value. (04 Marks)

Perform significant test of each variable. The critical values for 1%, 5% and 10% are 2.45, 1.69 and 1.31, respectively. (04 Marks)

Suppose you are a Curator of a major art museum, your director of finance tells you that the museum is running short of funds and suggests that you consider changing the price of admission to increase total revenue. What do you do? Do you raise the price of admissions, or do you lower it?

- b. A persistent problem facing our society is the use of illegal drugs, such as heroin, cocaine, and crack. Drug use has several adverse effects. Suppose the government increases the number of police team devoted to the war on drugs. What happens in the market for illegal drugs? Is that a correct policy decision by the government? Why?
- c. The research of Vietnam Public Health University shows that each year, smoking kills 40,000 Vietnamese, four times the fatalities from traffic accidents. According to Mrs. Hoang Anh from Health Bridge Organization in Hanoi, a pack of it in Vietnam has the cheapest price. The average retail price of cigarette is 0.22 USD/pack – a price that almost cannot be found anywhere in the world. Recently, the WHO has recommended the cigarette tax should be at 65%. Most smokers in Vietnam fall under two categories; Teenagers and Adults. What would have been the impact on number of smokers and government revenue? Would this policy have been success or not? Why?

3. i. What is meant by economies of scale? List out the factors that cause production average cost to fall, and briefly explain any two.

ii. A study was carried out to compare productivity of labour units of three motorcycle assembly units of Hero-Honda, TVS and Yamaha. The preliminary analysis measured their learning curve such as 75%, 85% and 65% respectively. Briefly explain how would compare the productivity improvement of each group of the production units.

iii. Define three types of production functions. Briefly explain why some firms are operating in short run for long time while some are entering into long run quickly.

iv. A short-run production function is given as;

$$Q = 84L + 11L^2 - 0.67L^3$$

where, Q and L indicate the level of output and labour hours respectively.

- a. Derive marginal and average production functions
- b. Find the level of output when marginal product of labour hired by the firm is maximum.
- c. Find the level of labour hours when elasticity of labour is equal to one.

4. i. Define Iso-quant, Iso-cost and producer equilibrium in the long-run.

ii. Consider the following estimated results for Cobb-Douglas production function for a firm.



. regress lnQ lnK lnL

Source	SS	df	MS
Model	.387693985	2	.193846992
Residual	.009489568	7	.001355653
Total	.397183553	9	.044131506

Number of obs = 10  
 F( 2, 7) = 142.99  
 Prob > F = 0.0000  
 R-squared = 0.9761  
 Adj R-squared = 0.9693  
 Root MSE = .03682

lnQ	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lnK	.1930887	.0515949	3.74	0.007	-.0710862	.3150911
lnL	.8784226	.061938	14.18	0.000	.7319625	1.024883
_cons	2.329507	.1824247	12.77	0.000	1.898141	2.760873

Where, Q, K and L are the output, capital and labour.

(04 Marks)

a. Interpret each coefficient value.

b. Which category of Returns to scale that the firm is enjoying? Briefly explain under which circumstances the firm can enjoy the returns to scale that you suggested.

(05 Marks)

Suppose *Nike shoes* company uses inputs of labour L and capital K to produce its output Q, according to the regression analysis the production function is set as

$$Q = 100K^{0.25}L^{0.5}$$

If labour is paid an hourly wage rate is  $w = \text{Rs.}5$ , rental price of capital is  $r = \text{Rs.}10$  and the firm's budget is  $\text{Rs.}300$ , find the level of capital and labour at the optimum level.

(06 Marks)

**(Total 20 Marks)**

Show how Marginal Revenue is equal to Marginal Cost when profit of a firm is maximized.

(03 Marks)

Briefly discuss whether E-Bay online market can be recognized as perfectly competitive market structure.

(04 Marks)

With hypothetical examples briefly explain how the Mark-up Factor and Lerner Index are used to measure monopoly power of firms.

(04 Marks)

Write short notes on any three in the followings;

- Price taker and price maker.
- Horizontal and vertical product differentiation.
- Market concentration ratio.
- Monopsony and Oligopsony.
- Peak-loading pricing and price leadership.

(09 Marks)

**(Total 20 Marks)**