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CHARTERED ACCOUNTANTS OF SRI LANKA SCHOOL OF ACCOUNTING AND BUSINESS BSc. (APPLIED ACCOUNTING) GENERAL / SPECIAL DEGREE PROGRAMME

YEAR III SEMESTER I – INTAKE IV (GROUP A/B) END SEMESTER EXAMINATION – AUGUST 2017

BEC 30325 Managerial Economics

Date	:	19th August 2017
Time	:	9.00 a.m 11.30 a.m.
Duration	:	Two and a half (02 ¹ / ₂) hours

Instructions to Candidates:

- This paper consists of three sections. (A, B and C)
- Section A- Answer <u>ALL</u> questions in the sheet provided Section B- Answer only <u>Four (04)</u> questions
 - Section C- Answer only <u>One (01)</u> question
- The total marks for the paper is 100
- The marks for each question are shown in brackets
- Statistics tables are attached to the paper for your reference
- Answers should be written neatly and legibly.

Section A

Answer ALL questions

Question No. 01

- 1. Which of the following statements below best describes the theory of the firm?
 - a. Maximizing accounting profits is the primary goal.
 - b. A firm would combine resources in order to maximize welfare of its managers.
 - c. An entrepreneur would be more efficient than a firm.
 - d. A firm can reduce transaction costs by internalizing transactions.
- 2. The Ordinary Least Squares (OLS) method;
 - a. determines the slope and intercept of a regression line
 - b. is used to forecast the demand of a product
 - c. is the only tool used for demand forecasting
 - d. is the tool used for minimizing sum of errors
- 3. In managerial economics the concept of demand estimation primarily deals with;
 - a. predicting the sales of a particular product over a time period
 - b. forecasting the future changes in the variables affecting demand
 - c. building up relationships between demand for a particular product and variables affecting demand
 - d. identifying the main reasons for the sales trend and quantifying them
- 4. Which of the following is an example of a qualitative forecasting technique?
 - a. Consumer experiments
 - b. Regression analysis
 - c. Market experiments
 - d. Observational analysis

- 5. The law of diminishing marginal utility states that;
 - a. marginal product of consumption decreases as quantity of output increases.
 - b. total utility decreases as consumption of a good increases while consumption of other goods remains unchanged.
 - c. addition to the total utility as a result of increase in consumption of a good gradually decreases while consumption of other goods remains unchanged.
 - d. total utility increases at an increasing rate as consumption of a good increases.
- 6. The marginal product of labour is the;
 - a. output which could be produced without utilizing machinery or other factors of production.
 - b. extra revenue a firm generates by selling the output of one additional worker.
 - c. amount of extra output produced, when one worker is added while other factors of production are increased proportionately.
 - d. amount of extra output produced when one extra worker is added to a fixed amount of other factors.
- 7. Tinkerbell bakery makes such great tea buns that consumers do not respond much to changes in the price. If the owner is only interested in increasing revenue, he should
 - a. lower the price of the tea buns.
 - b. leave the price of the tea buns constant.
 - c. raise the price of the tea buns.
 - d. reduce costs.
- Which concept is commonly seen in the kinked demand curve model of the oligopoly market;
 - a. price discrimination
 - b. price leadership
 - c. price rigidity
 - d. price elasticity

- 9. Which of the following is a smoothing technique used under demand forecasting;
 - a. barometric technique
 - b. moving average method
 - c. input output method
 - d. seasonal adjustment factor

10. A statistical result mainly used to test the explanatory power of the regression model is;

- a. R-squared
- b. Standard Error
- c. Coefficient correlation
- d. T-statistic value

(Total 20 Marks)

Section B

Answer only **Four (04)** questions

Question No. 02

 "Managerial Economics is a combination of Economic theory and decision science tools and its' scope is quite beneficial for the managers in today's competitive business environment." Discuss this statement with respect to the scope of Managerial Economics.

(4 marks)

- The concept of value of the firm is regarded as an important decision rule in Managerial Economics. In line with that, describe the effects of each of the following on the value of the firm.
 - a. Increase in advertising expenditures by the firm's marketing department.
 - b. An expected increase in inflation

(5 marks)

3. Aniq is a final year student and he also works as a part-time gym instructor at the College gymnasium. During his free hours he engages in training athletes, for which he receives an allowance of Rs.10,000 per month. He has to incur a cost of Rs.1200 per month for his travelling and another Rs.600 on laundry on his sports clothes. Other than that, on the days that he comes to the gym he has to spend on a protein drink which would cost him Rs. 800 per month on average. If he was to be occupied elsewhere during his free time, he could have worked at the college cafeteria and earned Rs. 5,500 per month.

Identify the explicit, implicit and economic costs of this scenario separately, and advise Aniq why economic cost is more important than accounting cost.

> (6 marks) (Total 15 Marks)

Question No. 03

- Demand for Deevis skinny jeans are considered to be related with the price of Vitton belts. The initial price of a Vitton belt and the quantity demanded for Deevis jeans is Rs. 70 and 16000 respectively. If the price of Vitton belts were to be decreased by Rs.10, it was predicted that the demand for Deevis would increase by 4000 jeans.
 - a. Compute cross price elasticity of demand using the above information.
 - b. In order to increase the demand of Deevis skinny jeans by 22000, calculate the required price change in a Vitton belt.

(5 marks)

2. Briefly explain the steps in demand estimation and emphasize the importance of demand estimation for managerial decision making.

(4 marks)

3. Explain the concepts of break-even analysis and operating leverage. Discuss their relevance to decision making in a business firm.

(6 marks) (Total 15 Marks)

Question No. 04

1. Distinguish between the short run and the long run under theory of production.

(3 marks)

2. "In the short run the most critical decision is to decide how many variable inputs are to be employed per fixed input." Do you agree with this statement? How do managers take short run decisions?

(4 marks)

 "An expansion path is a line that connects optimal input combinations as the scale of production expands."

Explain this statement with appropriate illustrations.

(4 marks)

4. Achieving the optimal output level is a real challenge for firms. Explain the process by which the firm can achieve optimum output level in the long run. If any firm goes beyond this point what consequences will take place?

(4 marks) (Total 15 Marks)

Question No. 05

- 1. There are certain market structures in which the firms are highly interdependent and interconnected, especially the Oligopoly market. With respect to such interdependency explain the following concepts. Use examples to support your answers.
 - a. Strategic behaviour of firms
 - b. Prisoner's dilemma

(6 marks)

2. An insurance industry of Sebastan Islands consists of two firms; Life Plus Insurance Company and Good Life Insurance Company. The payoff matrix of potential profits for the two insurance companies is given below. The two companies are faced with two alternative strategies; to introduce a whole life policy or a money back policy.

		Good Life Insurance Co		
		Whole life policy	Money back policy	
Life Plus	Whole life policy	36, 36	18,24	
Insurance Co.	Money back policy	24, 24	12,18	

		(Total 15 Marks)			
c.	What is the Nash equilibrium?	(1 mark)			
b.	Do they have a dominant strategy each? If so what are they?	(4 marks)			
	Insurance Company.	(4 marks)			
a.	Find out the optimal strategies of Life Plus Insurance Company and Good Life				

Question No. 06

 Explain and graphically illustrate the short run equilibrium of a perfect competitive firm. Discuss the process through which the long run equilibrium can be reached"

(5 marks)

2. In dynamic marketing environment companies spend a huge amount on promotional campaigns. Which kinds of firms undertake extensive promotional campaigns and which market do they belong to? Explain and illustrates the impact of undertaking promotional campaigns on firm's average cost and profits.

(5 marks)

3. Discuss briefly the three degrees of price discrimination with suitable diagrams.

(5 marks)

(Total 15 Marks)

Section C

Answer only **One (01)** question

Question No. 07

The following regression output is related to Testor Car rides at a theme park. Many young groups visit this park to enjoy the racing car experience. The sales of 405 weeks were used to run a multiple regression analysis.

Dependent Variable: TESTSCR Method: Least Squares Date: xx/xx/xx Time: xx:xx									
Variable	Coeffic	ient	Std. Error	t-Statistic	Prob.				
С	700.4		5.5	126.48	0.000				
STR	-1.01		0.27	-3.77	0.000				
EL PCT	-0.130		0.036	-3.58	0.000				
MEAL PCT	-0.529		0.038	-13.87	0.000				
CALW_PCT	-0.048		0.059	-0.82	0.415				
R-squared		0.775	Mean dependent var		654.157				
Adjusted R-squared		0.773	S.D. dependent var		19.053				
S.E. of regression		9.084	Akaike info criterion		7.263				
Sum squared resid		34247.463Schwarz criterion			7.311				
Log likelihood		-1520.188 F-statistic			357.054				
Durbin-Watson stat		1.430	Prob(F-statistic)		0.000				

TESTSCR: Weekly Rides of Testor Cars

STR: Standard Ticket Rates per car ride

EL_PCT: Electrical Package Rates

MEAL_PCT: Meal Prices at the food Court

CALW_PCT: Climate and weather conditions in the private car tracks

You are required to:

a. Construct and interpret the demand function for Testor Car rides.

(5 marks)

b. Test the significance of each independent variable at the 95% confidence level.

(3 marks)

c. Test the overall significance of this regression model at 95% confidence level.

(3 marks)

d. Comment on the overall explanatory power of this model.

(2 marks)

e. Write a short report to the Board of Management of Testor Car, on the regression output of this model and its relevance to decision making.

(7 marks) (Total 20 Marks)

Question No. 08

The telecommunications industry in South- Surania is an industry which is dominated by one single firm along with few small firms which follow the dominating firm. The dominant firm; Zel-tel Inc. sets the price in this market and the rest of the small firms follow the trends set by Zel-tel Inc. Suppose that overall industry demand equation is P = 100 - Q and the supply equations of the followers is P = 10 + 4Q.

a. Identify the relevant market structure for this industry. State reasons for your answer.

(4 marks)

b. Explain this model using a diagram.

(6 marks)

c. If marginal cost (MC) is constant at 18 (i.e. MC=18), calculate the price set by Zel-tel Inc. (6 marks)

d. Calculate the total quantity of supply of the followers.

(4 marks) (Total 20 Marks)
