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## UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Term Examination, Dec 2019

Program: MBA-LSCM  
Course: Economics & Management Decisions  
Course Code: ECON 7001  
No. of page/s: 7

Semester : I  
Max. Marks : 100  
Duration : 3 Hrs.

### Section-A

All the questions are compulsory in this section.

[10\*2 = 20]

No.	Questions	COs
1.	In a free-enterprises system, profit is socially desirable because it: (a) reallocates wealth from small firms to large firms. (b) attracts resources to the most desirable types of production. (c) allows firms to operate at higher levels of cost. (d) permits firms to hire more workers and thereby reduces the unemployment rate.	CO1
2.	If two goods are complements in consumption, then an increase in the price of one of these goods will cause: (a) the demand for the other good to decrease. (b) the supply of the other good to increase. (c) the demand for the other good to decrease. (d) the supply of the other good to decrease.	CO1, CO2
3.	Multiple regression analysis is used when: (a) there is not enough data to carry out simple linear regression analysis. (b) the dependent variable depends on more than one independent variable. (c) one or more assumptions of simple linear regression are not corrected. (d) none of the above.	CO1
4.	As the economy descended into the most recent recession, household income fell by 5 percent. Over the same period, total expenditure on automobile repairs increased by 3 percent. Assuming that all other economic variables were held	CO1, CO2, CO3

	<p>constant</p> <p>(a) the income elasticity of demand is equal to 0.6.</p> <p>(b) automobile repairs must be a normal good.</p> <p>(c) automobile repairs must be an inferior good.</p> <p>(d) both (a) and (b) are correct.</p>	
5.	<p>The marginal product of labour is equal to:</p> <p>(a) the additional labour required to produce one or more unit of labour.</p> <p>(b) average product when average product is at minimum.</p> <p>(c) the additional output produced by hiring one or more unit of labour.</p> <p>(d) the slope of a ray drawn from the origin to point on the total product curve.</p>	CO1
6.	<p>The law of diminishing returns begins at the level of output where:</p> <p>(a) marginal cost is at minimum.</p> <p>(b) average variable cost is at a minimum.</p> <p>(c) average fixed cost is at minimum.</p> <p>(d) None of the above.</p>	CO1
7.	<p>If a firm sells its output on a market that is characterized by few sellers and many buyers and limited long-run resource mobility, then the firm is:</p> <p>(a) a monopolist.</p> <p>(b) an oligopolistic.</p> <p>(c) a perfect competitive.</p> <p>(d) a monopolistic.</p>	CO1
8.	<p>The petroleum industry is an example of:</p> <p>(a) monopolistic competition.</p> <p>(b) pure oligopoly.</p> <p>(c) duopoly.</p> <p>(d) differentiated oligopoly.</p>	CO1, CO2
9.	<p>Real GDP increases</p> <p>(a) When there is an increase in the price level.</p> <p>(b) When there is an increase in the output of goods and services.</p> <p>(c) When there is an increase in the population.</p> <p>(d) At a constant over time.</p>	CO1

10.	Business cycles (a) are a common phenomenon across time and space. (b) have no fixed periodicity or amplitude. (c) rarely synchronize across countries. (d) all of the above.	CO1
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**Section-B** **[4\*5 = 20]**  
**Attempt all the questions.**

No.	Questions	COs
11.	State the relationship between the total revenue of a firm and the price elasticity of demand along a linear demand curve.	CO1
12.	How does the analysis of demand contribute to business decision-making? Give your answer with reference to the responsibilities of a sales manager.	CO1, CO2, CO3
13.	Graphically differentiate the long-run equilibrium in the following market: (a) Perfect competition, (b) Monopoly, and (c) Monopolistic Competition.	CO1
14.	Can a monopoly firm charge any price for its product? If not, why?	CO1, CO2

**Section-C** **[3\*10 = 30]**  
**Attempt all the questions.**

No.	Questions	COs
15.	A firm estimated a demand function for their mugs: $D_m = 1.25Y - 0.8P_m + 0.5D_c - 0.1P_c$ Where D stands for demand, Y is income growth, P is the price, m is mugs, and c is coffee. (a) What is the price and income elasticity of demand estimates for mugs? (b) How do we estimate the cross price elasticity between coffee mugs and coffee? Are they complementary goods or substitute goods?	CO1, CO2
16.	For a perfectly competitive firm, the following total revenue and cost functions is given; $TR = 10Q, TC = 1000 + 2Q + 0.01Q^2.$ Determine how many units of the product a firm will produce per annum at profit maximization level. Also, find out the total profits made by it in the equilibrium.	CO1, CO2
17.	For the following total-profit function of a firm:	CO1,

	$\Pi = 80x - 2x^2 - xy - 3y^2 + 100y$ <p>and the Constraint function; <math>x + y = 12</math></p>	CO2
	<p>(a) Determine the level of output of each commodity at which the firm maximizes its total profit.</p> <p>(b) Give the economic interpretation of Lagrangian multiplier.</p>	

**Section-D**

**[2\*15 = 30]**

**Attempt all the questions.**

No.	Questions	COs
18.	<p>In July, 1972, Jaguar launched the XJ12 luxury sports car, having developed a product which was acknowledged to be of excellent quality and performance. The price had been set at £ 3,726 compared with at least £ 6,000 for comparable vehicles. At this price, the company believed that the planned output of 20,000 units could be sold. The price had been arrived at following the cost plus method by estimating the cost per car at full capacity and then adding a satisfactory margin. The company however sold 6,000 units. As expected, demand exceeded supply. By the end of 1972, there was a two-year waiting list for the product and second-hand cars were being sold for prices, which exceeded the list price, by more than 40 per cent. It is also known that one car was sold at the higher price of £ 5,226.</p> <p><b>Questions:</b></p> <p>(a) Estimate the demand function faced by the company and show it graphically.</p> <p>(b) Did the company charge the correct price? Determine the price the company should have charged. How much opportunity loss did the company make?</p> <p>(c) What lesson would you draw from this case?</p>	CO1, CO2, CO3, CO4
19.	<p>The Xerox Corporation was the first to introduce a copying machine in 1959, based on its patented xerographic technology. Until 1970, Xerox had no competition and thus little incentive to reduce manufacturing costs, improve quality, and increase customer satisfaction. Even when Japanese firms began to</p>	CO1, CO2, CO3, CO4

take over the low end of the market with better and cheaper copiers in 1970, Xerox did not respond. It concentrated instead on the middle and high end of the market, where profits margins were much higher. Xerox also used the profits from its copier business to expand into computers and office systems. It was not until 1979 that Xerox finally awakened to the seriousness of the Japanese threat. From competitive benchmarking missions to Japan to compare relative production efficiency and product quality, Xerox was started to find the Japanese competitors were producing copiers of high quality at far lower costs and were positioning themselves to move up to the more profitable middle and high-end segments of the market.

Faced with this life-threatening situation, Xerox, with the help of its Japanese subsidiary (Fuji Xerox), mounted a strong response, which involved reorganization and integration of development and production and an ambitious companywide quality control effort. Employee involvement was greatly increased; suppliers were brought into the early stages of product design, and inventories and the number of suppliers were greatly reduced. Constant benchmarking was used to test progress in the quality-control program and customer satisfaction. By taking these drastic actions, Xerox reversed the trend toward loss of market share, even in the low segment of the market, during the second half of the 1990s.

History seemed to repeat itself, however, at the beginning of the last decade, when Xerox once again found itself battling Japan's Canon for supremacy in the new digital world of office information technology-this, despite the fact that during the second half of the 1990s. Xerox had recast itself as a digital document and solution company that combines hardware, software, and service into a service and consulting package, industry by industry. It is clear that remaining competitive in today's globalized world requires the firm to constantly redefine its market and core competency, with constant alertness to the competition, while continuously innovating.

**Questions:**

(a) What managerial lessons are there for other technological firms in today's

	<p>highly competitive and globalized world?</p> <p>(b) How did Xerox allow the same competitive problem to recur at the beginning of the last decade?</p> <p>(c) Do you think that Xerox would be successful? What you do?</p>	
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