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UPES

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2018

Program: MBA-LSCM | **Semester : I**
Course: Economics & Management Decisions | **Max. Marks : 100**
Course Code: ECON 7001 | **Duration : 3 Hrs**
No. of page/s: 8

Section-A

All the questions are compulsory in this section. [10*2=20]

Q.No.	Questions	CO
1.	Which of the following is not a determinant of the demand for a good? (a) Its cost of production (b) Expectations (c) The prices of related products (d) Preferences	CO1,CO2
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 increase. (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.	Which of the following is not an assumption associated with the definition of a production function? (a) Technology remains constant. (b) Both inputs and outputs are measured in monetary units. (c)The function shows the maximum level of output possible with a given combination of inputs. (d) All units of the inputs are homogeneous.	CO1
4.	If the quantity of a commodity demanded remains unchanged as its price changes, the coefficient of price elasticity of demand is (a) greater than one.	CO1

	(b) equal to one. (c) smaller than one. (d) zero.	
5.	Which of the following is a variable cost? (a) Interest payments (b) Raw materials costs (c) Property taxes (d) All of the above are variable costs.	CO1
6.	Which of the following markets comes close to satisfying the assumptions of a perfectly competitive market structure? (a) The stock market (b) The market for agricultural commodities such as wheat or corn (c) The market for petroleum and natural gas (d) All of the above come close to satisfying the assumptions of perfect competition.	CO1,CO2
7.	If average cost is at a minimum, then (a) it is equal to marginal cost. (b) total cost is also at a minimum. (c) profit is at a maximum. (d) All of the above are true.	CO1
8.	The market for automobiles is an example of (a) monopolistic competition. (b) duopoly. (c) differentiated oligopoly. (d) pure oligopoly.	CO1,CO2
9.	Real GDP increases (a) When there is an increase in the price level. (b) When there is an increase in the output of goods and services. (c) When there is an increase in the population. (d) At a constant over time.	CO1
10.	Business cycles	CO1

	(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.	

Section-B **[4*5=20]**

Attempt all the questions.

Q.No.	Questions	CO
11.	State the relationship between the total revenue of a firm and the price elasticity of demand along a linear demand curve.	CO1,CO2
12.	What is the distinction between economic costs and accounting costs?	CO1,CO2
13.	What is the relationship between the marginal product and the average product curves of a variable input?	CO1,CO2
14.	What are the economic features of different phases of business cycle?	CO1,CO2

Section-C **[3*10=30]**

Attempt any three questions.

Q.No.	Questions	CO
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, CO3
16.	Graphically differentiate the long-run equilibrium in the following market: (a) Perfect competition, (b) Monopoly, and (c) Monopolistic Competition and show the dead-weight loss and presence of excess capacity.	CO1,CO2, CO3
17.	For the following total-profit function of a firm: $\Pi = 80x - 2x^2 - xy - 3y^2 + 100y$ and the Constraint function; $x + y = 12$	CO1,CO2, CO3

	(a) Determine the level of output of each commodity at which the firm maximizes its total profit. (b) Give the economic interpretation of Lagrangian multiplier.	
18.	Distinguish between demand-pull inflation and cost-push inflation. Can the two types of inflation go hand-in-hand? Explain in this regard the 'wage price-spiral'.	CO1,CO2, CO3

Section-D **[2*15=30]**

Attempt all the questions.

Q.No.	Questions	CO
19.	In November 1975, Mr. Kumar Shetty, the managing Director of Standard Motors Limited, Madras, called a conference of his top aides to discuss the situation arising out of the fall in demand for cars of the company as a result of recession in automobile industry. Present at the conference were Mr. Ranjit Patnaik, Sales Manager, Mr. Ajay Sawhnery, the cost accountant, and Dr. K.D. Tewari, the Business Economist of the company. The sales Manager, Mr. Patnaik, quoted certain demand analysis for new automobiles and pointed out that the price-elasticities of demand for new automobiles have been estimated to range over 1.5 to 1.7. According to him, if we have the elasticity coefficient as 1.5, this would mean that the increased demand will be one and one-half times as great as great the decreased price, or in other words a 1.0 percent decrease in price would produce a 1.5 percent increase in demand. At the existing price of Rs. 25,000 per car, he estimated the sales volume at 1,000 cars. He, therefore, calculated that if the price is reduced from Rs. 25,000 to 24,000 the volume and revenue will be affected as follows: A price reduction from Rs. 25,000 to Rs. 24,000 is 4 percent. With a demand elasticity of 1.5 this would indicate a resulting increase in sales of 6 percent, (i.e. 1.5*4%). So, volume would be increased from 1,000 to 1,060. The sales revenue would also go up as follows:	CO1,CO2, CO3,CO4

	At a Price of Rs. 25,000 1,000 cars * 25,000 = 2,50,00,000 **At a Price of Rs. 24,000 1,060 cars * 24,000 = 2,54,40,000** **Thus, revenue will be increased by Rs. 4,40,000.** He pointed out that as price reduction by one producer will be met by others; he is keeping in view the effect of a general price change by all sellers and not considering any relative advantage. The business economist was, however, chary in accepting the sales manager's argument. He consulted the cost accountant who gave the following data: **Average Total Cost = Rs. 23,000/car** **Total Variable Cost = Rs. 1,84,00,000** On the basis of these data, he made the following computations: **Fixed Cost = Rs. 46,00,000** **Variable Cost (18,400*1,060) = Rs. 1,95,04,000** **Total Cost = Rs. 2,41,04,000** Profits were thus determined thus: **Revenue = Rs. 2,54,40,000** **Cost = Rs. 2,41,04,000** **Profit = Rs. 13,36,000** Thus the profits would declines from Rs. 20,000 to Rs. 13,36,000. These results came as surprise to the sales manager. **Questions:** (a) The price reduction of Rs. 1,000 has reduced revenue per car by Rs. 1,000. How it would change the cost per car? What will average total cost at the new sales volume? (b) What do you conclude from the calculations made by the business economist? (c) "In general, the higher the level of total fixed cost relative to total cost (or the lower the level of total variable cost relative to total cost), the higher the price elasticity of demand must be in order to justify a price reduction, and vice-versa." Do you agree? If so, why?	
20.	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,	CO1,CO2, CO3,CO4

improve quality, and increase customer satisfaction. Even when Japanese firms began to 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 highly competitive and globalized world? (b) How did Xerox allow the same competitive problem to recur at the beginning of the last decade? (c) Do you think that Xerox would be successful? What you do?	