Name:

Enrolment No:

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Economics & Management Decisions **Semester: I**
Program: MBA AVM **S.Code:ECON7001**
Time: 03 hrs. **Max.: 100**
Instructions:

SECTION A

S. No.		Marks	CO
Q 1	Statement of question		**CO1**
A	Adam Smith's book An Inquiry into Nature and Causes of the Wealth of Nations; was published in 1. 1776 2. 1777 3. 1778 4. 1779	**01**	
B	Consider an annuity of three Rs. 100 payments at the end of each of the next three years at 10 per cent interest: 1. 247.68 2. 336.59 3. 248.68 4. 458.59 Please refer Present value table.	**02**	
C	What is inflection point?	**01**	
D	True or False: If the marginal function is greater than the average function, the average must be falling.	**01**	
E	Give the cost function TC = 36000 + 20X - 15 X2 + 0.2 X3 find out average fixed cost when X = 900 is given by 1. Rs. 35 2. Rs. 40 3. Rs. 25 4. Rs. 30	**01**	
F	Which of the following pairs of goods, are substitute and which are compliments? Explain: 1. Television and TATA Sky 2. Kachori and Samosa	**01**	
G	Margin of Safety can be defined as 1. Excess over Break Even sales 2. Excess over sales	**01**	

	3. Excess over Fixed Cost 4. Excess over contribution		
H	What will be the Output if Cobb-Douglas Production function with parameters A=100, α = 0.5 & β = 0.5, K= 25 & L= 36; Q = 100 $K^{0.5}$ $L^{0.5}$ Calculate the level of output (Q). 1. 3200 2. 3500 3. 3000 4. 4000	**01**	
I	Explain the concept of Multiplier.	**01**	
J	From the following, identify which one is not, Trade Cycle characteristics 1. Time frame of several years 2. Recurring Nature 3. The uptrend is fast and acute but the down trend is slow an gradual 4. Business cycle starts at a place and time.	**01**	
Explain True or False with reasons:			
K	Slope of the marginal function is the first derivative of that marginal function.	**03**	
L	The Value of R^2 is 0.954, which means that more than 95 percent of the variation in the independent variable is explained by changes in the dependent variable.	**03**	
M	Implicit cost represent the value of foregone opportunities but do not involve an actual cash payment.	**03**	
SECTION B			
Q.2	SHORT ANSWER QUESTIONS: Attempt any Four questions.		**CO2**
1	Basically, perfectly competitive firms and monopolists use the same rule to determine the profit maximizing output. True or False? Explain	**05**	
2	If a firm found it could only operate at a break even output rate, would it stay in business in the long run?	**05**	
3	Give diagrammatic presentation of 'Expansion Path'?	**05**	
4	The Average Cost of producing 10 units is Rs. 30, while the Average Cost of producing 20 units is Rs. 20. Find the Average Cost of producing 30 units.	**05**	
5	If the price of the product increases, BEP will increase or decrease. Explain with the help of hypothetical figures.	**05**	
SECTION-C			
Q.3	**LONG ANSWER QUESTIONS: Attempt any three questions**		**CO3**
1	Based on a consulting economist's report, the total and marginal cost functions for Bihar Electronics are $TC = 200 + 5Q - 0.04\ Q^2 + 0.001\ Q^3$ $MC = 5 - 0.08\ Q + 0.003\ Q^2$ The President of the company determines that knowing only these equations is inadequate for decision making. You have been directed to do the following:	**12**	

	1. Determine the level of fixed cost (if any) and equations for average total cost, average variable cost and average fixed cost. 2. Determine the rate of output that results in minimum average variable costs 3. If fixed costs increase to Rs 500, what output rate will result in minimum average variable cost?		
2	If Demand is elastic, comparatively lower price will benefit the businessman, if the demand is inelastic, higher Prices would be better for him." Elucidate this statement and examine the role of price elasticity in business decision.	**12**	
3	What is the use of mathematics in economic analysis? Explain with the help of maxima and minima and give explain different conditions in which shape of curves varies?	**12**	
4	Discuss the concept of Price Discrimination tools and economics of price discrimination under monopoly market structure.	**12**	
	SECTION-D		
Q.4	**Read and analyze the following the market problem carefully:**		**CO4**

Continental Airlines

When considering adding a new flight (or dropping an existing one that appears to be doing poorly). Continental engages in a very thorough incremental analysis along the lines given in the table.

Incremental Analysis as Employed by Continental Airlines

Problem	Shall Continental run an extra daily flight from City X to City Y?	
The Facts	Fully allocated costs of this flight Out-of-pocket costs of this flight Flight should gross	\$ 4,500 \$ 2,000 \$ 3,100
Decision	Run the flight. It will add \$ 1,100 to net profit by adding \$3,100 to revenues and only \$ 2,000 to costs. Overheads and other costs totaling \$2,500 (\$ 4,500 minus \$ 2,000) would be incurred whether the flight is running or not. Therefore, fully allocated or "average" costs of \$ 4,500 are not relevant to this business decision. The out-of-pocket or incremental costs count.	

The corporate philosophy is clear: "If revenues exceed out-of-pocket costs, put the flight on." In other words, Continental compares the out-of-pocket", or incremental, costs associated with each proposed flight to the total revenues generated by that flight. An excess of revenues over incremental costs leads to a decision to add the flight to Continental's Schedule.

The "out-of-pocket costs" figures that Continental uses is obtained by circulating a proposed schedule for the new flight to every operating department concerned and finding out what added expenses will be incurred by each of them. Here an alternative cost concept is used. If a ground crew is on duty and between work on other flights, the proposed flight is not charges a penny of their salary. Some costs may even be reduced by the additional flight. For example, on a late night round trip flight between Colorado Springs and Denver, Continental often flies without any passengers and with only a small amount of freight. Even without passenger revenues, these flights are profitable because their net costs are less than the rent for overnight space at Colorado Springs.

On the revenue side, Continental considers not only the projected revenues for the flights but also the effect on revenues of competing and connecting flights on the Continental Schedule. Several Continental flights that fail to cover even their out-of-pocket costs directly bring in

	passengers for connecting long-haul service. When the excess of additional revenue over cost on the long-haul flight is considered, Continental earns a positive net profit on the feeder service. Continental's use of incremental analysis extends to its scheduling of airport, arrival and departure times. A proposed schedule for the Kansas City at that time was not sufficient to service two plans simultaneously. Continental would have been forced to lease an extra fuel truck and to hire three new employees at an additional monthly cost of $ 1,800. However, when Continental began shifting around proposed departure times in other cities to avoid the congestion at Kansas City, it appeared that the company might lose as much as $ 10,000 in monthly revenues if passengers switched to competing flights leaving at hours that are more convenient. The two flights were scheduled to be on the ground at the same time in Kansas City.		
12	Discuss how Continental Airlines used incremental analysis in its flight service decisions and demonstrate the usefulness of the technique.	**24**	