PGDM (IB), 2015-2017
MANAGERIAL ECONOMICS
Subject Code: IB-105
TRIMESTER –I, End Term Examination, 2015

Time Allowed: 2 hours, 30 minutes **Max Marks: 50**

Roll No:

Instruction: Students are required to write Roll No on every page of the question paper, writing anything except the Roll No will be treated as Unfair Means. In case of rough work, please use answer sheet.

Sections	No. of Questions to attempt	Marks	Marks
A	3 out of 5(Short Questions)	5 marks each	3*5 = 15
B	2 out of 3 (Long Questions)	10 marks each	2*10= 20
C	Compulsory Case Study	15 marks	15
		Total Marks	**50**

SECTION A

Answer ***any three*** questions from this section.

Q.1. a) A consumer has an income of Rs.24. He wishes to spend his income on three different goods X, Y and Z. The Prices are Px = Rs. 2 ; Py= Rs. 3 and Pz = Rs.5. The marginal utility schedules are as follows:

Units	1	2	3	4	5	6
MU of X	30	20	16	8	6	4
MU of Y	24	15	9	6	3	1
MU of Z	15	10	8	5	1	0

What is the optimal mix of X, Y and Z that the consumer should purchase and why?

Q.2. a)JE Electricals currently employs 80 technicians, 100 unskilled workers, 30 machining operators and 40 electrical engineers. The marginal product of a technician is 450 lights per week, that of a machining operator is 550 per week and that of an electrical engineer is 600 per week. A technician earns Rs.500 per week, an unskilled worker earns Rs.400 per week, a machining operator earns Rs.700 per week and an electrical engineer earns Rs.750 per week. Is the proprietor employing the correct combination?

Q.3.a) Between real GDP and nominal GDP, which measure of national income would be appropriate for judging changes in standard of living?
b) How does Balance of Payments reflect the factor mobility of the economy with the rest of the world?

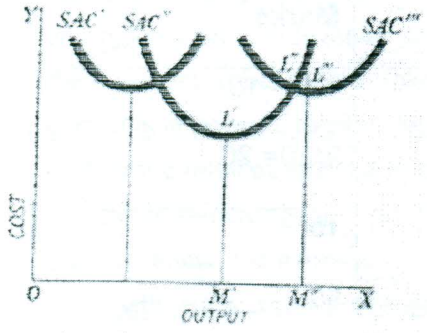
Q.4. How do the indifference curves differ for perfect substitutes, perfect compliments and absolute necessities?

Q.5. Explain how purchasing power parity theory explains the behavior of exchange rates.

SECTION B

Answer ***any two*** questions from this Section. Each question carries 10 marks

Q.1. a) Indicate the concepts of economies of scale and minimum efficient scale with respect to the graph on short run average cost curves below:



Short-run Cost Curves
Fig. 23.5

b) How would you relate a profitable outcome for a firm in the short-run equilibrium position in Perfect Competition market structure?

Q.2. The director of marketing at Vangaurd Corporation believes that sales of the company's Bright Side laundry detergent (S) are related to Vangaurd's own advertising expenditure (A), as well as the combined advertising expenditures (A), as well as the combined advertising expenditures of its three biggest rival detergents(R). The following multiple regression equation is estimated:

$S = a + bA + cR$

$a = 175086$; $b = 0.8550$; $c = -0.284$

a) What is the expected level of sales each week when Vanguard spends $40,000 per week on advertisements and the combined advertisement expenditures for the three rivals are $100,000 per week?
b) Interpret the coefficients a, b & c.

Q.3. a) What does the changing slope of the Philips curve signify?

b) How does the policy of Quantitative Easing affect aggregate demand?

SECTION C

Read the case and answer the questions given at the end.

Cuisine Tech, Inc. (CTI), manufactures a new type of oven, the HCM oven (halogen/ convection/microwave), and is trying to determine its optimal pricing strategy. (The HCM oven was first unveiled by General Electric in 1999-2000.) In the past CTI has been manufacturing a deluxe model of oven for people in the upper-middle-income bracket. The demand function of people (in this category) for the deluxe model is given by

$Q_H = 60{,}000 - 40P_H + 20P_c + 5H + 0.10I_H + .0001A_H$,

where

Q_H = annual sales (number of units) of the deluxe model,
P_H = price of the deluxe model,
P_c = price of a competing-brand oven,
H = number of two-income households (in millions) in this income bracket,
I_H = average annual income of households in this bracket, and
A_H = annual dollar expenditures on advertising for the high-priced model.
Currently, P_H = \$750, P_c = \$625, H = 10, I_H = \$56,000, A_H = \$500,000, and Q_H = 48,200.

For several years after the deluxe model oven was introduced, demand grew rapidly. Now, however, CTI believes that the market for this model is fairly well saturated and that prospects for future growth in sales are limited. (Note the small size of the coefficients of I_H and A_H.) Consequently, CTI is trying to determine if its profits would be greater if it added a second model-less elaborate, but cheaper-to its product line. Some researchers in the marketing department have argued that there exists a large potential market among middle- and lower-middle-income consumers if CTI were to develop a substantially cheaper model that performed the basic function of fast cooking and browning foods like chicken and beef. In fact, the researchers were so convinced such a market existed that they mailed a questionnaire to 10,000 families living in the suburbs of several large U.S. cities. They selected residents of neighborhoods populated primarily by people in the target income bracket. From the 5,000 questionnaires that were returned and from U.S. government statistics indicating the number of households in the target income range, the market researchers estimate that the demand function for the cheaper HCM oven is

$Q_L = 20{,}900 - 100P_L + 0.5H + 0.7I_l$

where
Q_L = annual sales (number of units) of the lower priced model,
P_L = price of lower priced model,
H = number of two-earner households (in 1,000s) that are in these income brackets, and
I_l = average annual income of households in the target income range.
Currently, H = 15,000 and I_l = \$28,000.

QUESTIONS

Q.1.If management is prepared to design a microwave oven specifically for the moderate-income market, how can it use the estimated demand curve for the lower priced product to

assess the relationship of its pricing decision to quantity sold and to the behavior of sales revenue? Suppose the managers were particularly interested in the following possible sales prices:

P_L = $480, $450, $425, $400, $375, $350, $325, $300, $275, $250, $225, $200, and $175. What would be the estimated quantity sold at each price, and how would total revenue and marginal revenue vary from price to price?

Q.2.Over what price range is the estimated demand for the low-priced oven elastic? Is it inelastic at any price or prices? If so, which?

Q.3. What is the income elasticity of demand for this product between I_l = $28000 and I_l = $30,000? (Assume P_L = $350 and H = 15,000.) What do you think the prospects are for future sales growth as income rises? Why?