

PGDM (IB), 2014-16

Managerial Economics

IB- 105

Trimester – I / IV, End-Term Examination: September 2014

Time allowed: 2 hrs 30 min

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	$3 \times 5 = 15$
B	2 out of 3 (Long Questions)	10 Marks each	$2 \times 10 = 20$
C	Compulsory Case Study	15 Marks	15
		Total Marks	50

Turn Over

Section A

3*5 = 15

Attempt any three out of five questions. Each question carries 5 marks. Illustrate with diagrams whenever necessary.

Q1

- a) A profit-maximizing business incurs an economic loss of \$10,000 per year. Its fixed cost is \$15,000 per year. Should it produce or shut down in the short run? Should it stay in the industry or exit in the long run?
- b) Suppose instead that this business has a fixed cost of \$6,000 per year. Should it produce or shut down in the short run? Should it stay in the industry or exit in the long run?

Q2 Over the last 30 years the Organization of Petroleum Exporting Countries (OPEC) has had varied success in forming and maintaining its cartel agreements. Explain how the following factors may contribute to the difficulty of forming and/or maintaining its price and output agreements.

- a. New oil fields are discovered by nonmembers of OPEC.
b. Crude oil is a product that is differentiated by sulfur content: it costs less to refine low-sulfur crude oil into gasoline. Different OPEC countries possess oil reserves of different sulfur content.
c. Cars powered by hydrogen are developed

Q3 Explain the various causes of inflation?

Q4 Explain any two of the following

- a) Excess Capacity
b) Shut down point
c) Price Discrimination

Q5 What are the difficulties in measuring National Income?

Section B

2*10 = 20

Attempt any two out of three questions. Each question carries 10 marks. Illustrate with diagrams whenever necessary.

Q1 The market structure of the local gas station industry is monopolistic competition. Suppose that currently each gas station incurs a loss. Draw a diagram for a typical gas station to show this short-run situation. Then, in a separate diagram, show what will happen to the typical gas station in the long run. Explain your reasoning.

Q2 Explain the law of variable proportion and its various stages with the help of diagram

Turn Over

Q3 Philip Morris and R.J. Reynolds spend huge sums of money each year to advertise their tobacco products in an attempt to steal customers from each other. Suppose each year Philip Morris and R.J. Reynolds have to decide whether or not they want to spend money on advertising. If neither firm advertises, each will earn a profit of \$2 million. If they both advertise, each will earn a profit of \$1.5 million. If one firm advertises and the other does not, the firm that advertises will earn a profit of \$2.8 million and the other firm will earn \$1 million.

- a. Use a payoff matrix (prisoners Dilemma) to depict this problem.
- b. What is the cooperative solution to this game?
- c. What is the likely outcome.

Section C

15

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

Entering the Aspartame Market

Aspartame is a low-calorie, high-intensity sweetener. It was discovered (by accident) by a research scientist at G.D. Searle & Co. who was working on an anti-ulcer drug. Use of aspartame in soft drinks was approved by the US Food and Drug Administration in 1983. Searle extended the original patent to 1987 in Europe and 1992 in the US. In 1985, Monsanto acquired Searle, including the aspartame patent, and began selling the softdrink version under the brand name "NutraSweet." The product had an enormous market as the sweetener in Diet Coke and Diet Pepsi, in Europe, Asia, and especially the US (approximately 10 times the size of the European market).

In 1986, Holland Sweetener Company (HSC) began building an aspartame plant in anticipation of the patent's expiration. Analysts estimated that HSC's capacity was about 5% of the world market. When HSC began selling its own version of aspartame in Europe, Monsanto dropped the price of NutraSweet from \$70 to \$22-30 per pound. Since HSC had higher costs (production has a steep learning curve), HSC lost money at the new price and Monsanto had substantially lower profits in Europe. When the US patent expired, Coke and Pepsi signed long-term contracts with Monsanto.

Questions for Analysis

- (a) Analyse the market structure and explain its various features .
- (b) Who benefited from HSC's entry?
- (c) Why do you think Monsanto triggered a price war in Europe? Do you think this was a good strategy?