

**Examination: 5073**  
**Management III**  
**Marketing Management**  
**Summer Semester 2005**

**Dr. John E. Brennan**

You are allowed to use a non-programmable calculator (in accordance with the instructions given by the examination office) and a translating dictionary from your native language to English (without any notes written into it). All of the twelve (12) examination questions must be answered (the estimated time to spend on each question is provided). This examination consists of four (4) pages and must be completed within 120 minutes.

**Question 1 (8 Minutes)**

Communication theory offers a convenient way to think about a major advertising campaign.

- (a) Outline Lasswell's basic communication model and explain its relevance to business communication policies.
- (b) What is meant by the term "competitive clutter" and give an example?
- (c) Explain "two-step communication" and give an example.

**Question 2 (10 Minutes)**



imagination at work

"Worldwide the people of General Electric are dedicated to turning imaginative ideas into leading products that will help solve some of the world's toughest problems." Naturally, GE's performance is measured by its financial results and its stock price. Overall corporate performance, however, is viewed in a much broader context: the health, safety and opportunities of workers, the impact of GE's operations on the environment and communities, and its interaction with governments around the world – "Our goal is to grow responsibly."

- (a) Explain GE's statement of business philosophy in the context of Relationship Marketing.
- (b) What is the difference in focus between a company that follows the "Selling Concept" and one that follows the "Marketing Concept"? What can you say about GE?
- (c) Do you see any relationship between "ethical business practices" in general and "corporate profitability" – or are these concepts at odds with each other?

**Question 3 (8 Minutes)**

All companies are constrained in their ability to set price.

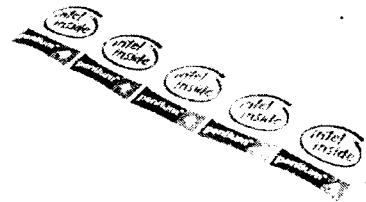
- (a) Explain what is meant by the terms "price ceiling" and "price floor."
- (b) If  $x = 87.2 - 3.6p$ , calculate the revenue maximizing price, quantity, and elasticity. What is the "price ceiling?"
- (c) In the retail business, markup pricing is a commonly used method. Explain the advantages and disadvantages to using this method?
- (d) Is it possible for the markup price to equal the profit-maximizing price? Explain!

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**Question 4 (8 Minutes)**

Most manufacturing companies do not sell directly to end-use customers. Between producers and the final users of the product stands the Distribution Channel. Two very different strategies were presented in the lecture to manage this distribution channel.

- Explain the Push Strategy.
- Explain the Pull Strategy.
- Which of these Distribution Strategies best explains the success of the "Inside Intel" marketing strategy?

**Question 5 (8 Minutes)**

The concept of Market Segmentation attempts to divide a large heterogeneous total market into groups of relatively "homogeneous" potential buyers called market segments.

- What do we mean by relatively "homogeneous" market segments in the sentence above? These segments display homogeneity in what sense?
- What is meant by the term "lifestyle" and explain why it has significance to marketers who are engaging in market segmentation?

**Question 6 (10 Minutes)**

An American company with headquarters in Chicago is considering the launch of a new product this summer in Germany. A well-known marketing research firm has collected the following information. The marketing research firm projects that at a price of € 21.60, 150,000 units could be sold in the first year. The company had previously expected a higher level of sales and based on the findings of the market research firm they are now a bit concerned about the prospects for this new product. A sales agent in Magdeburg has offered to handle this product for a fixed cost of € 1,000 per month and a sales commission of 15%. The company estimates the cost of establishing an office somewhere in Germany to be around € 240,000 per year. The sales person in this office would earn a monthly sales commission of 5% on all sales exceeding the € 5,000 level.

- What are the factors that must be considered when deciding whether to use a sales agent?
- What is the difference between agents and merchants?
- In the problem above, should the company use the sales agent or not?

**Question 7 (8 Minutes)**

When only one advertising media,  $z$ , is available, the sales response function is:  $S = f(z)$  and profit is equal to:  $\pi = P f(z) - C_f - v f(z) - z p$ ; where:  $P$  = selling price and  $p$  = the price of the media (both constants). At profit maximization:

- $z^* = [\epsilon_z^* (P - v) S^*] / p$ : Explain this result and what it means to the marketer.
- Explain the Dorfman / Steiner Theorem:  $B^*/P^*S^* = -\epsilon_z^* / \epsilon^*$  (Why is it negative?)

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**Question 8 (10 Minutes)**

Harvard Business School  
Professor Michael E. Porter  
is one of the world's most  
influential thinkers on  
competitive strategy.



- The Marketing Planning process begins with a situation analysis. Explain how to conduct a SWOT analysis.
- Professor Porter has said, "Competitive advantage is at the heart of any strategy." Explain the two generic strategies he outlined and what was his "warning" to companies?
- In the strategy literature the word "Synergy" often appears. Name two sources of synergy and explain each of them using examples.

**Question 9 (10 Minutes)**

An important tool in marketing planning is market share analysis.

- Using scanner data, the Parfitt / Collins Model decomposes market share into three main components (in the model these components from left to right are: A, B, and C). What is the name given to each of these three components and how are they calculated?
- Consider a brand that has  $B = 38\%$ . If you were the marketing manager responsible for this brand, what would you recommend?

**Question 10 (15 Minutes)**

A retailer in Allee-Center Magdeburg is selling two consumer products; Ace and Base. They know that these products are complements to each other. The profit-maximizing price of Ace is € 14.50. On average 4.1 units of Base are sold every time a unit of Ace is sold. The profit-maximizing price of Base is € 2.85 and its direct variable cost is € 1.65. It has been estimated that the cross price elasticity between these two products is equal to  $(-1.91)$  and the profit maximizing price elasticity of product A is  $(-3.93)$ .

- What assumptions were made when the Amoroso-Robinson Relation was derived? Explain the relation and what does it tell us about pricing?
- Explain the concept of Cross Price Elasticity of Demand and what relevance does it have to the marketer?
- Discuss the factors that must be considered when pricing Ace.
- Is it optimal for the company to charge the profit-maximizing price for Ace? Based on the Niehans Formula, what price would you recommend that they charge for Ace?

Let: A = Ace and B = Base, then

$$p_A^* = [\epsilon_A / (1 + \epsilon_A)](v_A) - M, \text{ where } M = (p_B - v_B)[\epsilon_{BA} / (1 + \epsilon_A)](x_B / x_A)$$

**Question 11 (15 Minutes)**

Consider a popular consumer product that has the following price response function:

$$S = 5,273,600 - 95,200 P$$

The product has a total cost of production and distribution given by the following function

$$TC = 56,800 + 7.12 S$$

where:  $S$  = sales quantity,  $P$  = selling price, and  $TC$  = total cost.

- (a) Calculate the revenue-maximizing price for this product. If the company were to charge this price, how much profit would it earn?
- (b) Calculate the profit-maximizing price for the product. If the company were to charge this price, how much profit would it earn.
- (c) Calculate the profit maximizing price elasticity and demonstrate that the Amoroso-Robinson Relation is in fact true.

**Question 12 (10 Minutes)**

All diffusion models have a similar structure:

$$S(t) = g(t) [N^* - N(t)].$$

- (a) How are diffusion models used in marketing?
- (b) A very popular diffusion model used in marketing planning is the Bass Model. Explain the workings of the Bass Model model.

**This is the end of the examination**

**GOOD LUCK!**