

# Examination: Management III

## Marketing Management

Summer Semester 2002

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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) exam questions must be answered (the estimated time to spend on each question is provided). This examination consists of three (3) pages.

### Question 1 (10 Minutes)

The State Farm Insurance Company is a major provider of insurance services to consumers in the United States. Their Mission Statement says, "Our success is built on a foundation of shared values, quality service, and relationships. Our vision for the future is to be the customer's first and best choice in the products and services we provide. Our customers' needs will determine our path."

- (a) Explain this statement of business philosophy in the context of the Marketing Concept.
- (b) Discuss in detail the relationship between Service Quality and Customer Satisfaction.
- (c) Outline a method that could be used by this company to measure Customer Satisfaction.

### Question 2 (8 Minutes)

The study of Consumer Behavior is guided by several theories originating in the field of psychology. Understanding the behavior of consumers is never a simple task!

- (a) In 1913, John Watson delivered a famous lecture that became known as the "behaviorist manifesto." Explain the major elements of Watsonian Behaviorism (SR) and how it was influenced by the work of Ivan Pavlov (Classical Conditioning).
- (b) Discuss the extension of this theory by B. F. Skinner (Operant Conditioning).

### Question 3 (15 Minutes)

Consider a single product company that is currently spending an advertising budget of 14 on two available advertising media ( $z_1$  with unit price  $p_1$  and  $z_2$  with unit price  $p_2$ ).

$$z_1 = 4.0; p_1 = 2.0 \text{ and } z_2 = 2.0; p_2 = 3.0$$
$$S = 2.4 + 6.4 \sqrt{z_1} + 3.2 z_2 - 0.2 z_2^2, \text{ where } S = \text{Sales Quantity}$$

The product sells for 5.5, direct variable cost is 4.25, and the fixed cost is 3.8.

- (a) Is this company allocating its advertising budget optimally between these two available media? Explain and justify your answer in detail (Yes / No answers are not sufficient).
- (b) Calculate the profit earned by this company.
- (c) Could this company increase its profit by spending 19 on advertising (Assume  $z_1 = 5$  and  $z_2 = 3$ )? Explain your answer in detail.

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**Question 4 (10 Minutes)**

Michael Porter, a Professor at Harvard University and an authority on competitive strategy, has outlined in his book five forces that must be considered when assessing the profitability of any industry.

- Name these five forces and explain how each of them can effect the profitability of a company operating in the industry.
- Explain how the buyers of the product in a market could limit the profitability.

**Question 5 (8 Minutes)**

A company's ability to set price is constrained between a "ceiling" and a "floor".

- Explain what is meant by the "ceiling" and the "floor" and outline two of the price setting methods presented in the lecture.
- If  $x = 40 - 4p$ , calculate the revenue maximizing price and the revenue maximizing price elasticity of demand.

**Question 6 (12 Minutes)**

The sales of four popular consumer brands (A - D) that constitute the relevant market for the producer of brand C have been tracked using scanner data and the following concepts have been calculated.

	Brands			
	A	B	C	D
Penetration	0.71	0.63	0.44	0.29
Repeat Purchase Rate	0.2978	0.6878	0.4237	0.5567
Buying Intensity Rate	0.9712	1.0196	1.0592	0.963

- Which of these brands is the market leader? Explain your answer.
- Which of these brands is experiencing the most difficulty penetrating this market? Outline and explain a marketing strategy that might be appropriate for this company.
- Which of these brands is experiencing the greatest difficulty in the area of repeat purchases? Outline and explain a remedy for this problem.

**Question 7 (8 Minutes)**

In the retail business, markup pricing is a commonly used business practice.

- What are the advantages and disadvantages to using this method?
- Is it possible for the markup price to equal the profit maximizing price? Demonstrate mathematically under what conditions this might be possible.

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**Question 8 (8 Minutes)**

Decisions concerning the Distribution Channel are very important.

- What factors must be considered when a company selects the Direct Marketing channel?
- Explain the differences between Merchants, Sales Agents, and Brokers.

**Question 9 (10 Minutes)**

The Bass Model is the most popular diffusion model and is used extensively.

- Name the two groups of consumers studied by the Bass Model and explain how their buying behavior differs.
- Consider product A ( $p = 0.03$ ;  $q = 0.38$ ) and product B ( $p = 0.16$ ;  $q = 0.41$ ). Which of these two products would take the least amount of time to exhaust their potential market,  $N^*$ ? Explain your answer in detail with a sketch if possible.

**Question 10 (15 Minutes)**

A manufacturer with fixed costs of 1200 sells two industrial products (A and B) that are complements,  $\epsilon_{BA} = -2.8$ . The price response function of product A is known to be:

$$A = 2600 - 120 P_A$$

The direct variable cost of product A is 15. The company sells on average 4.2 units of product B every time it sells a unit of product A,  $(B / A) = 4.2$ . The price of product B,  $P_B$ , is 2.6 and its direct variable cost is 1.4.

- Calculate the profit maximizing price of product A,  $P_A^*$ , when no consideration is given to product B sales.
- Based on the prices  $P_A^*$  and  $P_B$ , calculate the total profit earned by the company.
- Considering product B, the company should charge what price,  $P_A^\circ$ , for product A?
- If the company were to charge the prices  $P_A^\circ$  and  $P_B$ , the total profit earned by the company would increase (decrease) by how much?

Niehans Formula:  $P_A = [\epsilon_A / (1 + \epsilon_A)](v_A) - M$ , where  $M = (P_B - v_B)[\epsilon_{BA} / (1 + \epsilon_A)](B / A)$

**Question 11 (8 Minutes)**

The communication process is the transmission of information from place to place.

- In the Communication Model what is meant by the term Competitive Clutter? Explain.
- Give an example of Two Step Communication.

**Question 12 (8 Minutes)**

The "push" and "pull" strategies have been used to manage the Distribution Channel.

- Explain the difference between these strategies and relate to the "Inside Intel" campaign.

**This is the End of the Examination - GOOD LUCK!**