7262   *Your Roll No*

M.Sc. Operational Research / Sem. II   J

Paper 203— MARKETING MANAGEMENT

(Admissions of 2009 and after)

Time   3 hours   *Maximum Marks* : 70

(Write your Roll No on the top immediately

on receipt of this question paper)

Attempt any five questions.

All questions carry equal marks.

1. (*a*) Explain the term Marketing Management. Discuss its role in context of growing economy of India.

   (*b*) Classify the market structure depending on the nature of competitive conditions.

2. (*a*) Explain how the marketing mix can be changed during the different stages of the product life cycles

   (*b*) Derive the equilibrium conditions for a firm which makes decisions with respect to promotional effort in order to maximize profit.

P. T. O.

3. Explain the money averaging policy for purchase of a single commodity under fluctuating prices.

What is single procurement policy? Determine the critical price for the following probability density for price X:

$$f(X) = \frac{1}{200}; \quad 1000 \leq x \leq 1200$$

with three purchase opportunities.

4. (a) Pricing decisions play a key role for the future of the organization. Describe how the prices are set in practice.

   (b) Give mathematical model for joint optimization of price and quality keeping promotional expenditure fixed.

5. (a) The brand switching behaviour for two companies (A and B) in a market can be modeled as the following transition probability matrix. Currently A and B hold 60 and 40 percent of market share respectively

	B	
A	7	3
	·4	·6

Find the equilibrium market share. Is the equilibrium market share independent of initial market share? If yes, why?

   (b) Discuss Vidale-Wolfe model. What is advertising pulse?

6. Formulate the media-allocation problem as an integer programming problem.

The advertising department is planning to give ads in two magazines A and B The potential customers of the product are women in the age group 20–40 with income $>=2000/-$ w_1 and w_2 are 0 6 and 0 4 respectively. The data are given as follows:—

		Magazine A	Magazine B
(i)	Circulation/Edition	50,000	30,000
(ii)	Female reader's age group (20–40)	30,000	15,000
(iii)	Income $>=2000/-$	20,000	7,000
(iv)	Cost of full page	2000	1000
(v)	No of Editions/year	24	52
(vi)	Average rating of advertisement	0 4	0 3

The management feels that there should be an ad. in at least alternate editions of A and company's budget is Rs. 50,000/- for expenditure. How many insertions should be placed in each magazine for effective exposure?

7 Write short notes on the following

(i) Distribution decision

(ii) Optimal location of company's warehouses

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