



Graduateship in Marketing - Stage 4

LOGISTICS MANAGEMENT

FRIDAY, AUGUST 17, 2007. TIME: 9.30 am - 12.30 pm

Please answer the question in Section A, and **ONE** question from each of Sections B, C and D.

(If more than the specified number of questions in Sections B, C and D are attempted, delete those questions you do not wish to have marked. Otherwise the examiner will mark the **FIRST** question in Sections B, C and D.)

Section A carries **40%** of the marks. All other questions carry equal marks.

Do **NOT** repeat questions in the answers, but show clearly the number of the question attempted on the appropriate page of the Answer Book.

(Note: Marks are awarded for the relevant use of contemporary Irish and or international examples of marketing practice)

SECTION A (40%)

1. Case: Buy4Now: Ireland's Online Shopping Centre

- (a) Describe the consumer segmentation variables which can be used to profile the online shopper. How would you profile the Buy4Now shopper?
- (b) Outline what attracts people to buy online, and what are the likely perceived drawbacks of buying online.
- (c) Examine the fundamentals of the Buy4Now business model. What are the key sources of competitive advantage for the company?
- (d) Identify and discuss the key benefits partners gain from their membership of the Buuy4Now portal. Should Buy4Now add new partners?

SECTION B (20%)

2. Discuss the implications of managing marketing logistics.
3. Evaluate the transition from brand value to customer value.

P.T.O.

SECTION C (20%)

4. Demand for tins of dilutable orange in a supermarket is usually about 200 trays a month. Ordering costs are €100 per order and the basic unit price is €20 per tray. Carrying costs are 30% per month.
- (a) Based on the above information, determine the optimum number of trays of tins of orange that the supermarket should order at a time, the number of orders that should be made per month, and the total inventory costs.
- (b) Discounts are available as follows:
120 to 159 less 1.0%
160 to 199 less 2.0%
200 and over less 4.0%
What is the most economical quantity to order?
- (c) There is the possibility that the basic unit price of €20 per tray might increase significantly in the near future. If this happens, should the supermarket reconsider its policy about discounts, and, if so, in what way?
5. The Village Butcher Shop traditionally makes its meat loaf from a combination of lean ground beef and ground pork. The ground beef contains 80 per cent meat and 20 per cent fat, and costs the shop 80c per kilogram; the ground pork contains 68 per cent meat and 32 per cent fat, and costs 60c per kilogram. How much of each kind of meat should the shop use in each kilogram of meat loaf if it wants to minimise its cost and to keep fat content of the meat to no more than 25 per cent?
Formulate a linear programme for this problem. **Do not solve it.**

SECTION D (20%)

6. ABC Semiconductor Corporation produces two types of microchips: Type X, and Type Y that they sell to mobile company. Although the demand for these types exceeds ABC capacity to produce them, ABC continues to work on the demand and to limit the workers' workweek to 600 hours weekly (normal + extra time). Type X takes 30 hours to produce and brings a profit of €310 per batch, while Type Y requires 40 hours to complete and bring a profit €500 per batch.
- (a) Develop a linear programming model of the production problem facing ABC.
 - (b) Use a graphical approach to determine the optimum number of batches of each type to achieve maximum profit.
7. A regional airline can buy its jet fuel from any of three vendors. The airline's needs for the upcoming month at each of the three airports it serves are 100,000 gallons at airport 1, 180,000 gallons at airport 2, and 350,000 gallons at airport 3. Each vendor can supply fuel to each airport at a price (in cents per gallon) given by the following schedule:

	Airports		
Vendor	1	2	3
	cents	cents	cents
A	92	89	90
B	91	91	95
C	87	90	92

Each vendor, however, is limited in the total number of gallons it can provide during any one month. These capacities are 320,000 gallons for vendor A, 270,000 gallons for vendor B, and 190,000 gallons for vendor C.

- (a) Use the transportation technique to solve the problem of what purchasing policy that will supply the airline's requirements at each airport in order to minimise total cost.
- (b) Explain how you know that no further improvements are possible, showing your workings.
- (c) If there are any alternative combinations, show them in detail.