



EXAMINER'S REPORT

AUGUST 2007

LOGISTICS MANAGEMENT

General Comments

The results this autumn were not as good as I expected, however two scripts got 'A's and 2 achieved 'B's. The way this course and exam is structured requires one to really get into the theory, the techniques and how to apply the ideas in practice. This follows a learning cycle. Ideally students should look at the cases early on to get an idea of the types of problems which occur. These are mixtures of marketing, logistics, mathematics and strategy. Subsequently one should get into the theory, but not spend the year learning it off. Usually it is reasonably well done. Basically I expect a clear understanding of what is in the text and some practical illustrations from outside, such as from Irish applications. The middle part of the year should be spent on the quantitative techniques, hopefully linking them into the cases and the theory, and anecdotes about Irish companies where possible.

Students can get through by focusing on one of the parts, but this year there were few instances of full marks for a question. Consequently, students who failed invariably did one of the sections very poorly and were not able to compensate from another section. There were quite a few cases of grades in the mid-thirties where the candidate had not attempted one of the four sections. If they had they would surely have passed. This is indicative that they did not study all sections. It is safer to study all the sections.

There is no need to do roughwork and then write your answer out neatly. It wastes your precious time. Transcribing answers takes effort that would be better used on another question. Do your chosen questions as best you can. If you think you are making a mistake say so; then try to correct it. If you blank out, just leave two pages so that you can move onto other questions. Maybe later you will be able to do the rest of that question. Do not waste your time doing restarts. Try to make your points clear by highlighting them in bullet points and then elaborate if required.

SECTIONS A & B

The case questions are geared at bringing one through a process of analysis, evaluation, diagnosis and prognosis. Most students tried all parts of the case section, and attempted all the sections in the exam. Consequently there were fewer than ever failures due to not attempting one or more sections. In the past this was the most common cause of failure and the reason for the high average failure rate. It should be understood that Logistics is important not just of itself but also because it requires one to put on one's quantitative thinking cap when addressing marketing problems. When answering the case you should use the structure of the questions; it had four parts this August.

Within each part it is a good idea to make a statement, possibly using a headline or point form, and then justify it in a few sentences.

Quantitative Questions

The idea of having two different quantitative sections is to separate the less standard (C) question from the standard (D), the unstructured from the straightforward application of algorithms.

Section C contained an inventory question that was straight forward. This is a long section in the text and likely to occur every year. I was very surprised that some people did not get the economic order quantity of 82 units, and reorders 2.45 times a month. Generally the key to my seeing if inventory is understood is to put in something unusual and to require a calculation of total costs.

Question 5 is really easy formulation question, I include this kind of question occasionally because I hoped that everyone will find it easy to model the problem mathematically and there was no solution required. Unfortunately very few attempted to solve this question. I do not know if students got confused about part (c) of the question which advised "Do not Solve it".

Section D was an application of graphical linear programming with easy formulation problem. As I have said before it seems to have not been well prepared generally. It is not a simple method; one must develop an understanding of the technique. The basics are straightforward. 1. Develop the constraints. 2. Draw the graph. 3. Find the comers most likely to be best. 4. Put these into the objective function to get the best one. Generally this was not done well, even though it is fairly routine work. Most of the students did have attempts on this question but none scored full mark and the majority had not succeeded to formulate the problem.

The transport question is an example of a standard application of an algorithm which not many people got right or even tried. Because a transport question can be too simple compared to one on linear programming, I usually include a few of the little complications. If the amount of material available and the amount required do not match then there will be a requirement for a dummy row or column. Also, if the totals in a set of rows equals those in a set of columns, then there may need to be a dummy allocation to some route to ensure that the network is connected, so that one can get all the shadow costs. Further, if some of the costs are similar to others there is the possibility of multiple solutions, as was the case here. In this question the goal was to maximise profits from products, not minimize costs of deliveries.