EXAMINER'S REPORT

MAY 2003

MARKETING INFORMATION ANALYSIS I (MIA I)

General Comments

1. I have no doubt but that my sentiments here echo those of most of your examiners. Each year we report on our reactions to the papers just completed. These reports initially were designed to provide guidance to those who fail a paper, but I would contend that they are now every bit as important as the syllabus, lecture notes and even the past exam papers. As you know, they are present on the MII site, which makes them easily accessible to all. So may I make a heartfelt request! Read them and pay heed to what is in them, as the comments appear with alarming predictability. Enough said! Having got that off my mind let me begin.

2. Overall, the standard achieved (55%) was pretty good and broadly comparable with other Summer MIA 1 papers in the recent past.

3. Unfortunately, students still lose marks unnecessarily through a lack of consciousness that the answers they present cannot be correct. A significant number of answers presented, could and should have been recognised as impossible, had an estimate been made. May I illustrate what I mean? For example, it should be evident that the mean of ages ranging from 16 to 87 cannot be 10. Yet such answers have continued to appear. Nor can a correlation coefficient result in a score of 3.45. Again, the sample size necessary to meet certain conditions cannot be 12% or €385. Making an estimate of a probable answer in any calculation is still a valuable skill, even with computers and calculators at our disposal. Such "inspection for reasonableness" will usually uncover the fact that a formula is written incorrectly or that the sum of the frequencies (sum of F) and sum of mid-points (sum of X) columns are confused, or that, for example, an important square root sign has disappeared halfway down a particular calculation. Even if you do not uncover some simple error, the strategy of making an estimate and writing it down as such, may prove valuable. Examiners are just looking for opportunities to reward people and so might be more lenient to a candidate who recognises that his/her answer cannot be correct.

4. Again, as you know you must really answer the 5 questions, particularly if you are weak. In this paper, the number of topics students had mastered is too few. As usual, the analysis of time series topped the list of competencies. Again, as usual, the majority of students achieved a good grade in calculating the mean and standard deviation. However similar mastery was not apparent when they were dealing with topics that seem to be equally basic, such as calculating either correlation or regression or a sample size, or removing the effect of inflation from wages. As these will *always* come up – either Summer or Autumn- you should be prepared.

5. I am delighted to report that as many students (16%) scored an A grade as achieved a C. Top grades were over 90%, which shows that good marks are achievable and high grades or full marks were achieved for most of the topics examined.

6. This paper is quite predictable as it contains a number of distinct topics, each of which can only be asked in a finite number of ways. The likelihood is that a candidate who passed both of last year's papers would have had little bother with this one. In other words, the best way to prepare for the next MIA 1 paper is take the past set down off the website (at least 2 papers) and multiply the appropriate numbers by 2.

Comments on individual questions.

Question 1

Every student knows something about sampling but inevitably they lack the precision of thinking that is necessary. There is no point in confusing a systematic sample with a stratified sample. Everyone should know also how to calculate confidence intervals (90%, 95% or 99%), given their importance in understanding probability sampling.

Question 2

When working with 90 items of data, it is very careless to complete a frequency table totalling n= 85 or even n=97. While almost all the students could construct a frequency table and calculate the mean for such data, headings for charts and labelling of the axes in English rather than just 'f' and 'x' tends to be rather careless. The standard deviation again proved to be too formidable for many – a fact that just should not happen. The calculation of a column labelled FX^2 tends to be obtained by incorrectly squaring the FX column. This gives one F^2X^2 rather than $FX^{2.}$

Question 3

This year I concentrated on the Consumer Price Index (CPI). The calculation of 'real' wages was fairly poor as many candidates made an index of wages for males and for females and just left it at that. Most neglected to remove the effect of inflation, as measured by the CPI. When interpreting the data, the key issue is that real wages rose for both females and males and the data showed that the gap closed over the time period examined. Many were unable to use the CPI to index link monthly pay. Too often, the answer was just parachuted onto the page with little explanation. Good exam technique requires the notification of what you are attempting to do. Even if not totally correct, marks may be gained if your thinking can be identified.

Question 4

This was easily the best question with most attempting it and many scoring very high marks. The only reminder is that the graph should have a heading, have clearly identifiable labels on each axis and, in this case, include the trend line also.

Question 5

This was also very popular but many students got confused in their identification of the independent variable. Here the minutes of exercise were varied. Generally it was well done. Reproducing the relevant formulae is not an answer to the description of correlation/regression. Good students gave an example to illustrate the difference between the two concepts.

Question 6
As usual, few serious attempts were made here. For parts (a) and (b) I would advise using a tree diagram and then the answers will appear quite simply. When dealing with any question involving the normal curve, students are advised to sketch the curve in order to clearly see what must be calculated. This would have improved the attempts made in this area. As for the Poisson distribution, this section produced a few marks for those who attempted it.

Question 7
While this section of the course attracted few attempts, the results were better than expected. Topics such as the testing of hypotheses regarding the means of small samples and the chi-square test are ones in which a little practice will pay dividends. The questions are fairly routine and don't entail significant calculations.

Question 8
This question required a research proposal regarding the attitudes and behaviour of Irish drivers regarding penalty points. In essence, this is the complete blueprint for the research. All the decisions are outlined and justified. It is insufficient to state, for example, that 'a sample must be taken' or "I must sort out my research objectives and how I will conduct this research". You must outline the topics that will be covered, decide who is to be included, how many will be chosen and how they are to be selected so that they are a fair representation of the target population. The proposal must contain sufficient decisions that someone else could carry out your instructions *in your absence*.

Finally, may I thank the student who told me in astonishing detail how many people throughout Ireland had accumulated 1, 2, 4, and even 8 penalty points! Fortunately, such a photographic memory is unnecessary to give a good answer to the question asked.