



EXAMINER'S REPORT

MAY 2000

MARKETING INFORMATION ANALYSIS I (MIA I)

General Comments

1. The overall pass rate at 60% was marginally higher than in recent years. Again the wide spread of ability was evident from the customary absence of a Normal (or bell-shaped) Distribution for the results. As usual, it was more like a Uniform Distribution with roughly equal numbers of students achieving grades A, B, C, D, E and F.
2. Most students were well prepared for the exam - which is as it should be given that this subject is quite predictable and good scores were abundant. About 17% merited an A grade with the top mark at 93. About 12% got a B - which is also very commendable.
3. Those who are unfortunate enough to have to repeat in August should be advised that it is designed to be similar in standard but not identical. Both papers are set in February and only when the drafting is complete is a decision taken as to which is for the Summer and which for the Autumn. The Autumn paper is not therefore a 'softer option'.
4. By way of preparation for that exam, may I repeat my mantra - 'if you would not have passed last year's two papers, don't expect to pass this one either'.

Question 1

This question on sampling was quite popular, but to be perfectly honest, it was poorly done. The first part on systematic sampling was attempted by virtually every one and tended to generate good marks. In some cases, however, it was the only part to be attempted. Although students were asked to pick a systematic sample of size 250 from a population of 2000, surprisingly too many decided to pick every 10th student rather than every 8th. Another common error was to ignore any consideration of how the first individual was to be identified. The real bonus attaching to statistics based on simple random samples is that they are unbiased estimators of population parameters. Students should realise that provided it is based on a simple random sample, a statistic such as the sample mean will permit the estimation of a confidence interval for the population mean. Other conclusions about the results of random samples were also given credit. I must confess to being surprised in part (c) where many weaker answers used the formula for a sample size even though the question asked for a confidence interval to be calculated.

Question 2

This topic is really a banker, as it deals with material that students have been exposed to in the second level system. Part (a) asks for a histogram to be drawn. Here students should pay attention to the labelling of such charts. Check out in your text how to do this properly. It was noticeable that candidates from one exam. centre were particularly lax in putting any labels on the three charts contained in the paper. Also, many did not draw a histogram, but a

set of bar charts. Finally, the weaker students did not check that they had the correct total – and the total frequencies included in their tables ranged from 65 to 72 values rather than 70 values in the original data. Generally, candidates calculated the mean and standard deviation correctly. The question on the national average spending on food was a ‘give away’ which should not have caused many problems, but surprisingly people failed to get the 5 marks on offer.

Question 3

Either a Price or a Quality Paasche Aggregative index was given full marks in this question and this tended to prove no problem for most people. In part (b) the calculation of current purchasing power of money given a change of base was more problematic but the description of how the Consumer Price Index is organised by the CSO generated marks for many.

Question 4

Usually time series analysis is well performed by the majority of students and tends to be the lifesaver for the weaker student. This year, despite the fact that annual data was presented, many continued with the old routine and insisted on calculating the trend and seasonal variation as if it were quarterly data. Dare I say it: *Read the question!*

Question 5

The linked topics of correlation and regression generally earned high marks. In addition to calculating the least squares regression line, students were asked to plot the line on the scatter diagram. A few did not appear to see this part of the question and so lost marks. Marks were also lost by those who calculated the correlation coefficient but failed to follow through and assess the coefficient of determination which would have given them an estimate of the level of explained variation.

Question 6

The short questions on probability distributions attracted no more than about 5% of candidates even though they are asked at a very basic level.

Question 7

Hypothesis tests were generally ignored on this paper even though some of the regional centres got good scores in this area. The first question on a comparison of two sample mean values and the second on a chi-square were fairly basic and are generally well answered by those who were prepared for them. Some form of hypothesis test features on every paper and so these topics might merit more attention.

Question 8

Most students did well on this question where they were asked to analyse tables of data. In part B, the analysis of survey data published by the MRBI (Market Research Bureau of Ireland) was a ‘give-away’ and enabled many of the weaker students to get enough to pass. Students, however, should note the difference between numbers and percentages calculated using *population* figures rather than *sample* figures as the base.