



## EXAMINER'S REPORT

MAY 2006

### MARKETING INFORMATION ANALYSIS I (MIA I)

#### General Comments

1. The results this May are as follows:

|         |     |
|---------|-----|
| Grade A | 13% |
| Grade B | 8%  |
| Grade C | 14% |
| Grade D | 15% |
| Grade E | 4%  |
| Grade F | 47% |

While the overall pass rate (49%) is slightly less than this time last year, it is not untypical of student performance in recent years. However a frightening number failed to get 35%. It should also be noted that anyone within respectable distance of 35 has the paper looked at specially to see if a few more marks might be “squeezed” out of the material presented. So there will be no 34% marks EVER entered. Similarly all E grades typically are 35-36% and not 38% or 39%.

2. Many candidates attempted only 4 questions, rather than the 5 required in the examination and so, from the very outset, their chances of passing were reduced. This was a particularly noticeable problem, as almost everyone passed at least two of the 5 questions.
3. As those who monitor the examination papers in this subject will know, there are very limited opportunities for any examiner to set unreasonable questions and it is a very standardised and predictable paper. As an exercise in competence rather than a test of real mathematical ability, this examination didn't contain any new question types. All questions asked in this session have appeared in one form or another within the past few years. So the poor results cannot be attributed to an especially hard paper.
4. At the upper end of the scale many good answers were achieved. If candidates give good answers, they will get the marks. This time I am delighted to say that a few students merited over 90% and, as I say every year, it is possible to get 100%. Many congratulations to the candidates concerned – not forgetting their lecturers!!
5. So, as usual, may I encourage candidates to practise on past papers and ensure that they can do at least 5 sections of the syllabus.

### **Question 1**

This section of the syllabus deals with the calculation of confidence intervals and matters of sample size – both of which are very important for the conduct and interpretation of survey research. It was attempted by about half of the cohort but under half of them passed. One candidate got full marks.

The formula for calculating sample size is particularly easy to use and students should be encouraged to practise using the two basic formulae (one for use with means and standard deviations and the other when one is using proportions/percentages). In this case the confidence interval showed that while a majority could be achieved the percentage of first preference votes could be as low as 44-45%. So the analyst should state that it is too close to call. The meaning of a confidence was well enough stated by those who attempted this question. Finally, the interlocking quota sample was not well done. Basically, it is a matter of just dividing the 1,000 respondents in the given percentages. This is a standard question which has been asked on many occasions.

### **Question 2**

This deals with the making of tables/charts and diagrams and the summary descriptive statistics such as measures of central tendency (mean, mode and median) and measures of dispersion (usually the standard deviation). It was attempted by virtually every one and most people got a good mark. Marks were lost by the failure to label the axes of their histogram and to give it a heading. The calculation of the mean was generally well done. Attempts to correctly calculate the standard deviation were less successful. The examiner is at a loss to explain how candidates failed to correctly make a frequency distribution totalling to 90 managers. Close to 10% had other totals ranging from 53 to 85, 89, 91 and even 99!! In the final section of this question, almost no-one correctly calculated a 90% confidence interval.

### **Question 3**

This section on Indices was not very popular. Two calculations were required and this should have been a “banker” particularly the calculation of an overall price index.

### **Question 4**

The question on times series is always popular and this paper proved no exception. The marks were pretty good also. For most people, it was their best question. Labelling the time series graph clearly, showing the heading and the units involved might gain additional marks. The trend and quarterly seasonal variation were well done, as were the forecasts. Remember that when making a forecast, the seasonal effects have to be included.

### **Question 5**

This year the correlation/regression question was very popular and proved to gain good results for many candidates. Correlation was the focus of this question on this occasion. Besides drawing a scatter diagram, the candidates were asked to calculate both the correlation coefficient and the coefficient of determination (which is the r-squared value expressed as a percentage).

### **Question 6**

Only a tiny few attempted this question of probability and the results were dismal. No one got either section (a) or (b) correct. Section (c) was best. Students doing section (d) on the Poisson distribution should remember that “more than two” is not the same as “equal to two”.

**Question 7**

No real attempt was made to deal with the tests of hypothesis.

**Question 8**

This question of designing research on consumer behaviour regarding SSIA's was well done generally. As expected, the weaker students concentrated more on giving ideas on how the money might be spent. Decisions need to be written in sufficient detail so that anyone could follow these instructions and produce good reliable research. It is insufficient to say that "we must make decisions about how to define the population and how to do the sampling". These decisions have to be taken and the suggested methodology written clearly.