

## MARKETING INFORMATION <br> ANALYSIS I (MIA I)

## General Comments

1. More than half of the candidates (56\%) passed this time, which is within the usual boundaries of success for the May sitting of this paper.
2. Candidates were generally well prepared and many students performed very well with one in seven (14\%) gaining an A grade. This year a small number of students (4) scored 90 or higher - the highest mark being 93. Incidentally, marks of 90 and over were achieved both in Dublin and Cork, which were the two large centres.

3. While such high grades were much in evidence, the dominant feature of the chart above is the figure of over $35 \%$ who were given an F grade. It is also of note that $15 \%$ (which is too many really) could not even get 20 marks for their attempt. Picking the topics carefully and preparing answers to a previous paper is the only remedy I can suggest. If you want to be very well prepared and get an even broader view of the examiner's approach, get the last four papers. I reckon that these will give you sufficient information about the format of questions. In this way, you will come across most of the ways in which questions can be phrased.
4. However there is also the matter of being able to do such tasks. You must realise that marks are available in this paper irrespective of one's mathematical talent and while all topics on the syllabus are important for marketing purposes, the variety of tasks works to your advantage. Those who are good at essay writing and poor with numbers could lay a solid foundation for passing this exam as they could have gained $25 \%$ of the total marks without ever writing a single number. Typical of such questions in this paper were those relating to the design of a research programme and exploring the difference between

Laspeyre and Paasche index numbers. Drawing a histogram, a scatter diagram and graphing time series data can also generate fairly 'soft' marks for the weaker student.
5. You should, however, be able to perform the basic calculations using fairly standard formulae. These are routine tasks and involve such matters as the calculation of the mean and standard deviation, correlation and regression, time series and index numbers. You should practise doing each technique, using your notes and past papers.
6. It is worth mentioning that an increased number of students have seen that the questions on sampling (Q1) and on hypothesis testing (Q7) are worth mastering. Not only are they rather routine (when one has learned the method), but they are quite short and can be speedily done where one has expended a lot of time and effort wrestling with time series!

## Question 1

This was not as popular as I had expected. Remember that the calculation of a sample size is just a matter of a few lines and the correct use of a formula is the only issue. Not only is this important material - but it is also a very short question in an exam. Many students successfully completed the full answer in 4 or 5 lines. The section (b) answer was also short as it required the calculation of the number of people to be included in various cells of an interlocking quota sample. This is very easy and in my opinion should be considered by students. Some people used a tree diagram to show how many should be in each segment and this proved to be helpful.

## Question 2

Many did not attempt section (a) which required the candidates to give model D a weighting of 2 where the other models had a weighting of 1 . The frequency table was OK except for the few who found the total number of households to be 56,59 or 70 . Again, might I remind people that 37-52, 53-69 are not very helpful class intervals (intervals of size 10 or 20 or other decimal based numbers should be used). Generally, the histogram was well drawn and had labels and units on each axis as well as a heading. Many, however, do not distinguish between a bar chart and a histogram (look up a text book). The standard deviation is a basic calculation and should not present a problem to any candidate preparing for this paper.

## Question 3

This question on index numbers was very easy as it concerned the difference between the Laspeyres and Paasche methods of calculating index numbers. The students were then asked to calculate the Laspeyres Overall Price Index and to adjust it if the original value had been 106 rather than 100. The final part was to examine the purchasing power of money now relative to a time in the past.

## Question 4

As usual, this is the good question as times series analysis is usually well performed by all students irrespective of their overall results. Students are generally able to graph the data, calculate the trend and find the seasonal variation. They also are generally able to make forecasts based on the trend and seasonal variation.

## Question 5

Surprisingly, the scatter diagrams were not too good. Perfect positive correlation is shown by a set of points sloping upwards from left to right and lying on a straight line. The negative slope required to show ( $\mathrm{r}=-0.9$ ) was particularly badly done. The prediction of demand through the use of a regression equation is again something that should be practised by those who want to pass the paper. A similar comment applies to the rank correlation formula, which again is rather easy to calculate.

## Question 6

There is very little that can be said about this question on various aspects of probability distributions. Few attempted it and they met with varying levels of success. The Poisson distribution seems to be the section that students find easiest.

## Question 7

In some centres students have recently selected to concentrate on the syllabus section dealing with significance tests. This seems to be a good strategy as they generally gain good marks. Not only that, but this subject area is very important for our understanding of research findings and recurs in the MIA 2 paper. Surprisingly, the section on small samples produced better results than the chi-square test. One matter to note - I would recommend that people would write their conclusion in English rather than saying "Ho is rejected". More students should attempt this question.

## Question 8

Fewer than expected attempted to set out a research programme to investigate the behaviour and attitudes of Irish consumers to domestic garbage. Details of the suggested sample should be given to gain good marks. The pass rate however was OK.

