

## General Comments

1. The overall pass rate at $40 \%$ was low but is about par for the course for this session of the exams. To illustrate how poor the results were I noted that a third of the candidates got less than $25 \%$. While one student merited a B ( $60-69 \%$ ), the majority of those who passed scored a mere $40 \%$ - the bare minimum.

2 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'. I want to bring this to the attention of all students and so have repeated this comment, which was contained in a previous report.

3 With the Examiner's reports now on the MII web-site, students are advised to download all available reports and to take the comments to heart. Frankly, 'new' comments are hard to compose as the same errors recur with each successive cohort of students.

In the following section, I will comment on the individual questions where unfortunately the typical errors made their customary appearance.

## Comments on individual questions

## Question 1

These questions on sampling were not very popular nor were the attempts very good. Less than a third of the candidates tried the question and few met with success. Students should realise that the necessary sample size for probability samples is obtained by means of a formula. To answer each of the questions asked, a candidate must understand how a sample confidence interval relates to the sample size. Once these relationships are known, answering the questions takes very little work.

## Question 2

The question gave a table showing the number of people at each group in the Irish population (Census 96 data). Part (a) asks for a pie chart to be drawn. Nobody calculated the number of degrees that corresponded to each segment of the pie chart. While the examiner accepts a sketch in these cases, the degrees involved MUST be calculated. Otherwise a correct pie chart cannot be drawn.

Secondly, the students were asked to calculate the mean age from the frequency table. This is very basic and should be mastered by all candidates. Also the standard deviation was required. This again is fundamental to the course and should be within everyone's
competence when presenting themselves for examination. The median can be calculated either using the formula contained in the standard textbooks or by means of an ogive (cumulative frequency curve). Although either approach was acceptable, no one did this section of the question very well.

## Question 3

About $40 \%$ of candidates attempted this question. In part (a) the recalculation of an index was asked. This requires a one-line answer. The level of annual inflation to be reported is also a very simple matter. Finally, by calculating indices of the increase in male wages and female wages as well as the ratio of female to male rates, writing a short report on wage patterns is possible.

## Question 4

Usually time-series analysis is the most popular question and usually is well performed. This proved to be true on this occasion also. The graph of the data was generally well done. This year, the data began in quarter 2 of the first year, which proved a problem for many people when calculating the trend and seasonal variation.

## Question 5

The linked topics of correlation and regression were very popular and generally earned high marks. Students were asked to plot a scatter diagram - which generally was well done. The correlation coefficient was generally OK. While some students made an estimate based on common sense, full marks for the section were given to those who used the formal relationship between the two sets of marks - in other words, these used the regression equation.

## Question 6

Nearly $40 \%$ attempted the short questions on probability distributions but the results were dismal. Only 4\% passed.

## Question 7

About 20\% of candidates attempted these questions on hypothesis tests. The section on chisquare was fairly basic, but the attempts were fairly poor. Neither was the question on the difference of two sample percentages well done.

## Question 8

Most students did well on this question where they were asked to design a research programme on the consumption of beef.

