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General Certificate of Secondary Education March 2012

Mathematics

43601F

(Specification 4360)

Unit 1: Statistics and Number (Foundation)



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General

The paper proved to be accessible and students were clearly and consistently able to offer attempts at the whole paper. Attempts at AO2 and AO3 questions showed some improvement from earlier series. Although many arithmetical errors occurred they were fewer in number on this paper as more students made better use of the availability of a calculator. The exception to this was question 4.

Topics that were well done included:

- drawing a bar chart
- completing a pictogram
- working with a two-way table
- completing a frequency table
- interpreting a multiple bar chart.

Topics which students found difficult included:

- comparing two fractions
- percentage increase
- interpreting a pie chart.

Question 1

This proved to be a good starter for the vast majority of students. In part (b) a few dealt only with men's T-shirts and some added 'medium' and 'large' to their 'small' totals. Some misread the scale for women as 22.

Question 2

The pictogram was generally well answered with only a few students omitting the key. In part (b) there were many variations of successful answers although some students did not provide a headline and instead gave a title to the table or a question from a questionnaire. In part (c) many students understood there were 8 teams but some students then misread the question and gave 28 or 56 matches.

Question 3

This question was generally well answered, although many students misread the data. A small number obtained double the answer in part (a) by adding lunch, dinner and the total. Some students missed the instruction for simplest form in part (c). Part (d) required the two fractions to be compared but many students simply worked out the two fractions and stopped.

Question 4

All parts of this question were well answered. A number of arithmetical errors were seen in part (c), despite this being a calculator paper.

Question 5

Some students gave words for the answers when probabilities were asked for. Examples of inappropriate answers included "unlikely", "1 out of 15" or "1 in 15" and a small number used ratios.

Question 6

There were many good attempts to both parts of this question. In part (b) a significant proportion of students did not appreciate that, as the number of red counters increases, the number of yellow counters decreases.

Question 7

This question was quite well answered with some accurate work on the mean. Some students misinterpreted the data, using the greater mean as the faster time. Some students were not able to deal with the information in part (b).

Question 8

Most students completed the stem-and-leaf diagram accurately. The median was answered well. In part (c) some students mixed up 5% faster with 5 mph faster. The most efficient methods seen were when 5% of their median was found and compared with 59 - their median.

Question 9

This was a challenging question for most of the students. However, some very good solutions were seen with angles measured and percentages calculated.

Question 10

There was a good performance for the last question, with many fully correct solutions seen. Students found the ratio part the most difficult.

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