



General Certificate of Education

Mathematics 6360

MD01 Decision 1

Report on the Examination

2010 examination – June series

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General

The majority of the students were reasonably prepared for the exam and there were very few weak candidates. The general standard of presentation was quite good with some scripts very well presented.

Question 1

Part (a) Apart from the rare slip answers were almost always correct.

Part (b) The majority of candidates scored full marks here. A significant number failed to specify the people/tasks involved and a surprisingly large minority failed completely to see the point of the question.

Question 2

The two sorts were, in general terms, well known and very few wrong choices were made. The responses to part (b) were a little better than those to part (a).

Part (a)(i) A great many candidates scored only 2 marks. The third pass was often missing and in a few cases there were more than three.

Part (a)(ii) This part was almost always correct.

Part (b)(i) This was also usually correct – for all four marks.

Part (b)(ii) This was almost always correct.

Question 3

Generally this was a very high scoring question with many candidates scoring full marks. The most common error was to choose the wrong edge in 8th or 9th place in part (a).

In part (a) the preferred method of many candidates was to write down all edges in order of increasing size and then tick or cross them to indicate selection or rejection. The candidate's answer was almost always clear but it would have been nice if all candidates were encouraged to write out their final answer explicitly.

In part (d) a very common error was to confuse the terms 'edge' and 'point/town' and offer C as the answer.

Question 4

Part (a) Most candidates understood the method and how to record it properly but surprisingly many failed to maintain numerical accuracy throughout.

Part (b)(i) The method was widely known and the correct 4 odd nodes usually identified, as were the required three pairs. Finding the correct lengths proved much more difficult and many marks were lost there.

Part (b)(ii) This was poorly answered, with 8 being the most common answer.

Question 5

Part (a) This was possibly the weakest area of basic knowledge with many failing to take their 'tour' back to the start point.

Part (b) About half the candidates failed to spot the 'intended' answer and spent some time trying to find a solution by trial and error.

Part (c) This process was not as widely known as the others tested on the paper and the presentation by those who did know it was also the least clearly explained.

Question 6

Most candidates failed to score 10 or more marks – a very disappointing performance from candidates.

Part (a) Most candidates scored the first 3 marks although $x + y + z \geq 300$ caused more problems than it should. The fourth, involving percentages was beyond most. A significant minority clearly earned the mark for this by working back from the required answer in the next part.

Part (b)(i) Most candidates failed to satisfy the requirement for the M mark and most of those who did failed to earn the second mark – often this was because of previous failure with the percentage.

Part (b)(ii) Graph drawing still seems to be improving, with most candidates scoring at least 5 marks but seldom more. An objective line was usually absent and if present was usually a line representing income, not profit. Failure to label the feasible region was still quite common and careless line-drawing was not uncommon.

Part (b)(iii) Zero was by far the most common mark. As already mentioned, working with income rather than profit was a major error and those who, by hook or by crook, identified (320, 50) as the relevant point usually failed to state the number of each type of ball to be manufactured or specified 25 each of medium and fast rather than 50 of each.

Question 7

Most candidates earned at least three marks by providing evidence that they could perform the trace in a correct manner, but accuracy in calculation and sensible statements of the resulting values were sadly lacking and many candidates failed to score any more. A particular problem for many candidates was to fail to state the result of the 'Print' statement.

Question 8

Very few marks were scored. Around half the candidates appeared to think this question was about hexagons and certainly about the sizes of angles in degrees. From those who correctly interpreted the question the answers 2 and 6 to part (a) were about as common as the correct answers 1 and 5.

Most scoring attempts at part (b) were by numerical checking rather than the use of algebraic inequalities and revealed that most candidates had little or no concept of 'show', let alone 'proof' in this question.

Mark Ranges and Award of Grades

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