

STEP II, 2018, Q2 EC

This was the least popular of the pure questions on the paper, attempted by only 35% of the candidates. Very few candidates were able to score full marks and a fairly high proportion scored 0 on this question.

In the first part of the question, a significant number of candidates sketched convex functions and so had sketches that did not match the inequality. Most candidates were able to identify many of the key points required for the final section of this introductory part, but many could not explain it clearly enough for full marks in this section.

Most candidates made good attempts at the next section, but again the presentations often lacked enough clarity about how the inequalities were being linked together to be awarded full marks. In some cases, the choices for x_1 and x_2 were not within the interval (x_1, x_2) and so these candidates lost marks.

Candidates who attempted to complete the final parts of the question were generally confident about how the results from the first part were to be applied, but a significant number omitted to demonstrate that the function being used was concave and so were not able to achieve full marks here.



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