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## FOREWORD

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This booklet contains reports written by Examiners on the work of candidates in certain papers. **Its contents are primarily for the information of the subject teachers concerned.**

# METALWORK

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## GCE Ordinary Level

<p>Paper 6040/01 Theory, Drawing and Design</p>
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### Comments on specific questions

#### Section A

##### Question 1

- (a) Most candidates gained full marks for this part of the question.
- (b) This was generally answered badly with many candidates confusing the case hardening process with hardening and tempering.
- (c) Answers to this part of the question reflected candidate's confusion with **(b)**. No reference was made to the colour required for tempering.

##### Question 2

- (a) In general, answers were vague and lacking in the accurate sequence of operations. Detail was usually incomplete and restricted to a few of the marking out tools required. Illustrations, however, were good.  
  
Little reference was made to sizes, as required in the marking scheme, particularly in reference to the profile of the catch plate.
- (b) Although answered somewhat better than **(a)**, most candidates only described one method of removing the waste from the slot.
- (c) Answers to this part of the question were much better with some very satisfactory illustrations.

##### Question 3

- (a) This was a popular question and it was answered satisfactorily.
- (b) Knowledge of the correct lubricants for the three materials was disappointing.

##### Question 4

- (a) This question was answered badly. No solution showed the required tapers and chucking piece and very few included radiused corners. Most illustrations showed the casting gripped in the lathe by the 150mm diameter flange.
- (b) Answers tended to be vague and repetitive. It appeared that candidates were guessing the answers.

##### Question 5

Most candidates gained satisfactory marks for this question although there was a general lack of knowledge of the correct name of the tools. This applied particularly to the lathe tool chuck, which was often described as a knurling tool. The lathe centre was the least well known and there was confusion between the lathe cutting tools. The use of the individual tools was reasonably well known and illustrations were good.

**Section B**

In general, relatively little of the formal part of the drawing was completed.

**Question 6**

This was answered well. Sketching was good and annotation satisfactory with candidates gaining high marks for communicating their ideas even though a number of the ideas were not practical.

**Question 7**

As a result of the views being largely incomplete, it was often not possible to award many marks for the design solutions in the formal drawings as few answers included details of the design solutions. Solutions in which candidates had included detail suggested designs that were largely impractical, except for a method of attaching the 12mm diameter column to the base but even this could not be seen unless indicated by hidden detail.

Only a very few candidates attempted the sectional view.

In general, less than half the marks available for Quality of Design Solutions were awarded. Layout and draughtsmanship were satisfactory and lettering was good. Most answers included an accurately drawn symbol for the angle of projection used. Again because of lack of completion of the formal drawings, marks awarded for Drawing Knowledge were low except for those given for sketching quality.