

UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE

Joint Examination for the School Certificate  
and General Certificate of Education Ordinary Level

METALWORK

6040/1, 6040/2

INSTRUCTIONS

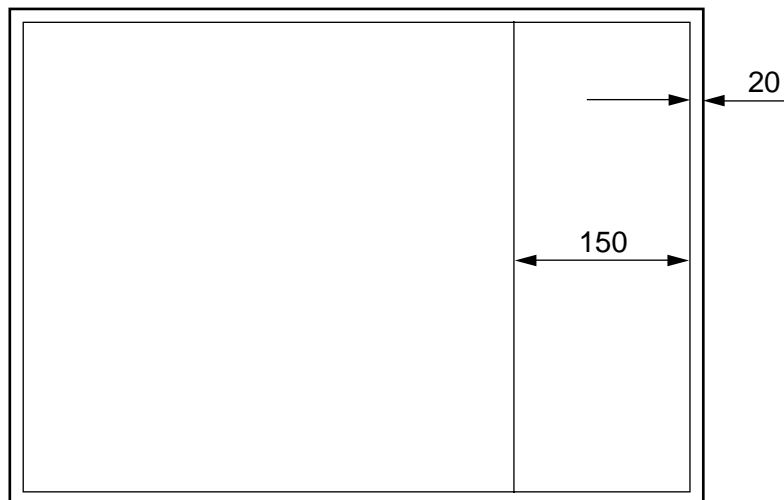
OCTOBER/NOVEMBER SESSION 2001

Great care should be taken that any confidential information given  
does not reach the candidates either directly or indirectly.

INSTRUCTIONS TO SUPERVISORS

Paper 6040/1 Drawing and Design

Each candidate will require drawing instruments and one piece of good quality A2 drawing paper. This should be ruled out as shown below before the examination.



PAPER 6040/2 Practical

**Please note that all materials required for this test are to be provided locally. They will not be provided by the Syndicate.**

Candidates must **not** be allowed a second supply of material.

No assistance or information, other than that printed in the examination paper, is to be given to any candidate.

No machine other than the drilling machine and a centre-lathe may be used.

All materials cut to length are to be left from the saw, except as otherwise mentioned.

N.B. The reducing of materials to examination requirements and the preparation of special tools or parts is to be undertaken by the candidates before the examination. Failure to prepare materials as specified will seriously handicap candidates.

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These instructions consist of 3 printed pages and 1 blank page.

Each candidate should be supplied with the following materials.

All dimensions are in millimetres.

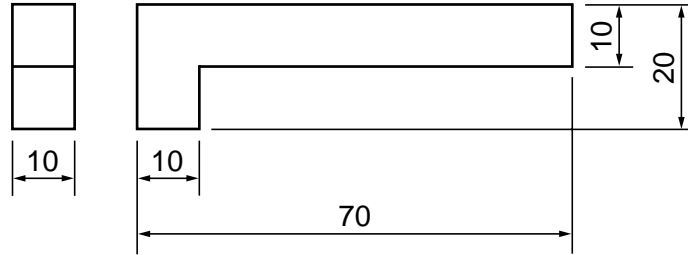
Two pieces of mild steel sheet 70 x 25 x 0.8 (22 ISWG) or 1 (20 ISWG) All ends and edges squared.

One piece bright drawn mild steel 30 x 10 x 40 long. Both ends squared.

One piece bright drawn mild steel 20 x 10 x 70 long. Both ends squared and prepared as in Fig. 1, prior to the examination.

One piece bright drawn mild steel 15 diameter x 16 long. Both ends faced.

One piece bright drawn mild steel 6 diameter x 58 long. Both ends faced and lightly chamfered.



**Fig. 1**

Two x 3 diameter ( $\frac{1}{8}$ " ) x 20 long snap head steel rivets.

One bag in which to enclose work.

Two tie on labels.

In addition to the usual marking, measuring and bench tools:

Every **two** candidates will require:

200 or 250 bastard cut hand file or near;

200 or 250 second cut hand file or near;

150 or 200 smooth cut hand file or near.

Three square needle file (or similar)

Every **five** candidates will require:

M6 x 1 taps and wrench

M6 x 1 die and holder

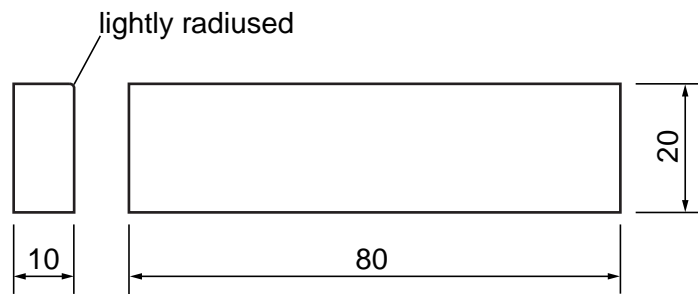
Cutting compound

Hacksaw fitted with tension saw

Rivet set/snap to suit rivets provided

Soft solder and appropriate flux for each candidate to make one joint. Heating source to be gas torch and not a soldering iron.

Bending former as shown in Fig. 2.



**Fig. 2**

Each drilling machine to be equipped with the following:

Drills: 3.0 (to suit rivets)  
6.0

Machine vice

Centre Lathe to be equipped with the following:

3-jaw chuck  
Centre drill  
Drill: 5.0 (M6 tapping drill)  
Right hand knife tool for mild steel

Each candidate will require the use of a lathe for approximately 15 minutes.

At end end of the examination the Supervisor is requested to carry out the following.

1. To see that candidates do **not** oil or grease their finished piece of work before packing.  
(Candidates in Singapore may slightly oil their work)
2. To see that the name and examination number of each candidate are clearly and correctly marked on the tie-on labels and that the labels are securely fastened, one to the candidate's work and any unfinished material and the other to the bag containing the candidate's work.
- 3 To enter the required details on one of the envelopes intended for scripts (reading pieces of 'work' for 'scripts') and to enclose a completed attendance sheet(s).
4. To pack the work securely and send it with the envelope containing the attendance sheet(s) to UCLES.

