

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**PHYSICAL SCIENCE**

**0652/05**

Paper 5 Practical Test

October/November 2004

**CONFIDENTIAL INSTRUCTIONS**

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

**The Supervisor's attention is drawn to the form on page 4 which must be completed and returned with the scripts.**

If you have any problems or queries regarding these Instructions, please contact UCIE  
by e-mail: [International@ucles.org.uk](mailto:International@ucles.org.uk),  
by phone: +44 1223 553554,  
by fax: +44 1223 553558,  
stating the nature of the query and the syllabus number quoted above.

This document consists of 4 printed pages.



### Instructions for preparing apparatus

These instructions detail the apparatus, reagents and specimens required by each candidate for each experiment in this paper. A summary of the questions that will be presented to the candidates is included, where appropriate, to allow the teacher to test the apparatus appropriately. **No access is permitted to the question paper in advance of the examination session.**

It is assumed that the ordinary apparatus of a science laboratory will be available, including a supply of purified water (distilled or deionised).

It is expected that candidates will have either a watch or sight of a clock with second hand.

If arrangements are made for different sessions for different groups of candidates, care must be taken to ensure that the different groups of candidates are effectively isolated so that **no information passes between them.**

### For Question 1

*Each candidate will require:*

- (i) approximately 10 cm of magnesium ribbon;
- (ii) scissors;
- (iii) a rule graduated in mm;
- (iv) a 100 cm<sup>3</sup> beaker;
- (v) a 100 cm<sup>3</sup> measuring cylinder;
- (vi) about 250 cm<sup>3</sup> of a solution of hydrochloric acid, concentration about 2 mol dm<sup>-3</sup>. It is important that all candidates have acid of the same concentration. Label this 'solution P';
- (vii) a stop clock.

**For Question 2**

*Each candidate will require:*

- (i) a biconvex lens of focal length about 10 cm, fixed with plasticine. Alternatively a suitable stand could be used. It will be assumed that all candidates will be provided with lenses of similar focal length;
- (ii) an illuminated object such as a lighted candle or small light bulb;
- (iii) a screen which can be a piece of white card;
- (iv) a metre rule;
- (v) some plasticine or 'Blu-Tack'.

Avoid placing candidates in strong sunlight for this experiment. Plasticine is used to fix the lens at right angles to the metre rule.

*Information required from the Supervisor:*

**The Supervisor is asked to carry out the experiments and to enter the results on a spare copy of the examination paper, clearly marked 'Supervisor's Results' and showing the Centre number. This should be returned with the scripts. Failure to do so may cause the candidates to be penalised.**

**This form must be completed and returned in the envelope with the scripts together with the seating plan and the Supervisor's Results mentioned on page 3.**

**October/November 2004**

*General*

The Supervisor is invited to give details of any difficulties experienced by particular candidates giving their names and candidate numbers. These should include reference to:

- (a) difficulties due to faulty apparatus;
- (b) accidents to apparatus or materials;
- (c) physical handicaps, e.g. short sight, colour blindness;
- (d) any other information that is likely to assist the Examiner, especially if this cannot be discovered in the scripts;
- (e) any help given to a candidate.

*The Supervisor is asked to supply the following information:*

Plan of work benches, giving details by candidate numbers of the places occupied by the candidates for each session and a copy of the 'Supervisor's Results'.

NAME OF CENTRE .....

SIGNED .....

*Supervisor*

CENTRE NUMBER .....

DECLARATION (to be signed by the Principal)

The preparation of the practical examination has been carried out so as to maintain fully the security of the examination.

NAME .....

(in block capitals)

SIGNED .....(Principal)