

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

CHEMISTRY

0620/05

Paper 5 Practical Test

May/June 2004

CONFIDENTIAL INSTRUCTIONS

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

READ THESE INSTRUCTIONS FIRST

The teacher responsible for preparing the examination is **not** allowed to consult the question paper before the examination. Teachers should, as part of the preparation of the examination requirements, carry out any tests indicated on page 2 in order to satisfy themselves that the supplied materials are satisfactory.

The standard Report Form to be included with the scripts is given on pages 3 and 4. Please detach and enclose it with the scripts. If scripts are to be despatched in more than one envelope, it is essential that a copy of the Supervisor's Results and of the Report Form are sent inside **each** envelope.

More material may be issued if required, without penalty, but this should not be necessary. Safety spectacles may be provided if considered necessary.

If you have any queries regarding these Instructions, please contact CIE

by e-mail: International@ucles.org.uk,

by phone: +44 1233 553554,

by fax: +44 1223 553558,

stating the Centre number, the nature of the query and the syllabus number quoted above.

This document consists of **4** printed pages.

For Question 1

Each candidate will need the following:

- (a) 3 g of anhydrous sodium carbonate in a stoppered test-tube labelled **A**;
- (b) 4 g of potassium hydrogencarbonate in a stoppered test-tube labelled **B**;
- (c) two plastic drinking cups;
- (d) 200 cm³ of hydrochloric acid of concentration 2 mol/dm³;
- (e) stirring thermometer, covering the range 0°C to 100°C graduated in degrees and clamped securely in such a way as to allow a plastic cup of fluid to be swirled underneath;
- (f) a timer, e.g. a stop clock, stop watch or wall clock with seconds hand;
- (g) one measuring cylinder, 0 cm³ to 50 cm³.

When solid **A** is added to 30 cm³ of hydrochloric acid there should be a measurable temperature rise.

When solid **B** is added to 30 cm³ of hydrochloric acid there should be a measurable temperature decrease.

For Question 2

Each candidate will need the following:

- (a) a stoppered test-tube, labelled 'mixture of **C** and **D**' containing about 0.4 g of calcium hydroxide and 0.2g of calcium nitrate, intimately mixed. The mixture may appear lumpy and if prepared too far in advance may absorb water. The mixture will still be suitable for use.
- (b) filtration apparatus, funnel, stand and filter paper;

Candidates will require access to the following for the qualitative analysis:

- (c) aluminium powder;
- (d) aqueous sodium hydroxide, of concentration 1.0 mol/dm³;
- (e) aqueous ammonia, of concentration 1.0 mol/dm³;
- (f) pH indicator paper/chart;
- (g) a drinking straw;
- (h) distilled water;
- (i) rack of test-tubes;
- (j) two boiling tubes;

Labels do not need to include concentrations

This form must be completed and returned in the envelope with the scripts.

REPORT ON PRACTICAL CHEMISTRY

JUNE 2004

1 (a) Supervisor's Results

It is recommended that the supervisor should be a chemistry teacher.

The supervisor is asked to carry out the experiments in Questions 1 and 2 and to record the results on a spare copy of the question paper clearly labelled 'Supervisor's Results'. Failure to enclose these results and this report form may lead to candidates being unavoidably penalised.

(b) The Candidate Numbers of candidates in each session were:

First Session

Second Session



2 The Supervisor is invited to report details of any difficulties experienced by candidates, giving names and Candidate Numbers. The report should include reference to:

- (a) any general difficulties encountered in making preparations for the examination;
- (b) difficulties due to faulty apparatus or materials;
- (c) accidents to apparatus or materials.

Other cases of individual hardship, e.g. illness, temporary disability, should be reported direct to UCLES on the normal *Application for Special Consideration* form.

NAME OF CENTRE

CENTRE NUMBER

SIGNED
Supervisor

DECLARATION (to be signed by the Principal)

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

NAME
(in block capitals)

SIGNED (Principal)