

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**CHEMISTRY**

**0620/05**

Paper 5 Practical Test

October/November 2006

**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 pages 2 and 3 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 7 and 8. 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

Supervisors are advised to remind candidates that all substances in the examination should be treated with caution. Pipette filters and safety goggles should be used where necessary.

In accordance with COSHH (Control of Substances Hazardous to Health) Regulations, operative in the UK, a hazard appraisal of the examination has been carried out.

Attention is drawn, in particular, to certain materials used in the examination. The following codes are used where relevant.

**C** = corrosive substance

**F** = highly flammable substance

**H** = harmful or irritating substance

**O** = oxidising substance

**T** = toxic substance

Hazard data sheets should be available from your suppliers.

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

by e-mail: [International@cie.org.uk](mailto:International@cie.org.uk),

by phone: +44 1223 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 **5** printed pages and **3** blank pages.

**For Question 1**

Each candidate will require:

- (a) a 10 cm<sup>3</sup> measuring cylinder;
  - (b) rack of test-tubes;
  - (c) For Experiments 1, 2 and 3
- [F] 1 g samples of zinc powder and fine iron filings and a 0.5 g sample of magnesium powder – all clearly labelled with name and mass;
- (d) For Experiments 4 and 5
- [F] 1 g sample of magnesium powder and 2 g sample of zinc powder – both clearly labelled with name and mass;
- [H] (e) approximately 100 cm<sup>3</sup> of a saturated solution of aqueous copper(II) sulphate;
- (f) two polystyrene cups and two beakers to support the cups;
  - (g) a Bunsen burner;
  - (h) splints;
  - (i) one stirring thermometer, covering the range 0°C to 100°C;
  - (j) a wash-bottle of distilled water.

A 1 g sample of zinc powder when added to 5 cm<sup>3</sup> of aqueous copper(II) sulphate should give a temperature rise of about 30°C.

**For Question 2**

Each candidate will require:

- [H] (a) a stoppered test-tube containing about 1 g of ammonium chloride, labelled solid **F**;  
(b) a stoppered test-tube containing about 0.5 g of potassium iodide, labelled solid **G**;  
(c) pH indicator paper and litmus papers;  
(d) Universal Indicator solution;
- [C] (e) aqueous nitric acid, labelled as such, of concentration  $2 \text{ mol/dm}^3$ ;
- [T] [C](f) solutions of aqueous lead(II) nitrate and aqueous silver nitrate, labelled as such, of sufficient concentrations to give a positive halide test;
- [C] (g) aqueous sodium hydroxide solution of concentration  $2 \text{ mol/dm}^3$ ;  
(h) teat pipettes;  
(i) rack of test-tubes, at least one of which must be hard glass or *Pyrex*;  
(j) a boiling-tube;  
(k) distilled water;  
(l) Bunsen burner;  
(m) splints.

Note. Labels do not need to include concentrations.

**THE SUPERVISOR'S REPORT IS ON PAGES 7 AND 8**

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

REPORT ON PRACTICAL CHEMISTRY

NOVEMBER 2006

**1 (a)** *Supervisor's Results*

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

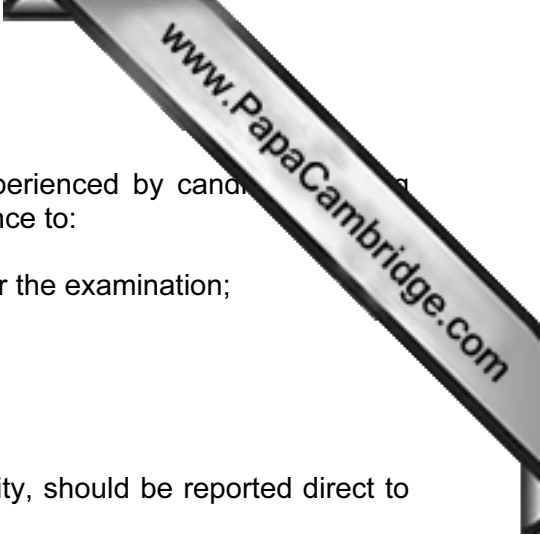
The supervisor is asked to carry out the experiments in Questions 1 and 2 and to record the results on a spare copy of the question paper clearly labelled 'Supervisor's Results'. Failure to enclose these results and this report form may lead to candidates being unavoidably penalised.

**(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, including 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 CIE 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)