

**CHEMISTRY**

**0620/53**

Paper 5 Practical Test

**May/June 2018**

**CONFIDENTIAL INSTRUCTIONS**

**Great care should be taken to ensure 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 Supervisor's Report to be included with the scripts is given on pages 7 and 8. Please detach and enclose it with the scripts. If scripts are despatched in more than one envelope, it is essential that a copy of the Supervisor's Results and of the Supervisor's Report 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. Suitable eye protection should be provided.

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.

|           |                                      |           |                 |
|-----------|--------------------------------------|-----------|-----------------|
| <b>C</b>  | corrosive                            | <b>MH</b> | moderate hazard |
| <b>HH</b> | health hazard                        | <b>T</b>  | acutely toxic   |
| <b>F</b>  | flammable                            | <b>O</b>  | oxidising       |
| <b>N</b>  | hazardous to the aquatic environment |           |                 |

Hazard data sheets should be available from your suppliers.

If you have any queries regarding these Confidential Instructions, please contact Cambridge stating the Centre number, the nature of the query and the syllabus number quoted above.

email info@cie.org.uk  
phone +44 1223 553554  
fax +44 1223 553558

The syllabus is approved for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

This document consists of **8** printed pages.

**Question 1**

Each candidate will require the following chemicals and apparatus. Labels must **not** include concentrations.

- [C] (a) 150 cm<sup>3</sup> of aqueous sodium hydroxide of concentration 1.0 mol/dm<sup>3</sup> labelled **aqueous sodium hydroxide for Question 1**
- (b) 100 cm<sup>3</sup> of dilute hydrochloric acid of concentration 2.0 mol/dm<sup>3</sup> labelled **acid R**
- [C] (c) 100 cm<sup>3</sup> of dilute sulfuric acid of concentration 2.0 mol/dm<sup>3</sup> labelled **acid S**
- (d) access to water and distilled water
- (e) 50 cm<sup>3</sup> measuring cylinder
- (f) 250 cm<sup>3</sup> beaker
- (g) 50 cm<sup>3</sup> burette with stand and clamp
- (h) funnel for filling burette
- (i) stirring thermometer, –10 °C to +110 °C at 1 °C graduations
- (j) polystyrene cup
- (k) teat pipettes

## Question 2

Each candidate will require the following chemicals and apparatus. Labels do **not** need to include concentrations.

[C] (a) 8 cm<sup>3</sup> of aqueous sodium hydroxide of concentration 1 mol/dm<sup>3</sup> in a stoppered test-tube labelled **solution T**

[F][MH] (b) 3 cm<sup>3</sup> of propanone in a stoppered test-tube labelled **liquid U**

[MH] (c) access to solid ammonium chloride

(d) aqueous chromium(III) chloride of concentration 0.1 mol/dm<sup>3</sup>

[N] (e) 10 cm<sup>3</sup> of aqueous iodine in potassium iodide  
(0.25 g of iodine, I<sub>2</sub>, and 0.8 g of potassium iodide, KI, dissolved in distilled water to give 10 cm<sup>3</sup> of solution)

[C] (f) aqueous sodium hydroxide of concentration 1 mol/dm<sup>3</sup>

[MH][N] (g) aqueous zinc sulfate of concentration 0.1 mol/dm<sup>3</sup>

(h) distilled water

(i) pH indicator papers and chart

(j) red and blue litmus paper

(k) 10 cm<sup>3</sup> measuring cylinder

(l) watch glass

(m) splints

(n) apparatus for a flame test

(o) Bunsen burner and matches

(p) rack of test-tubes

(q) 2 × boiling tubes

(r) stopper to fit test-tubes

(s) test-tube holder

(t) teat pipettes

(u) spatula

**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.

### Supervisor's Report

**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 directly to Cambridge on the Special Consideration form.

**Declaration** (to be signed by the Supervisor)

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

Name of Centre .....

Centre number .....

Signed .....

Name (in block capitals) ..... (Supervisor)

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