



CHEMISTRY

0971/05

Paper 5 Practical Test

For Examination from 2018

SPECIMEN 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 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 5 and 6. 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 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. Safety glasses 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.

C = corrosive substance

F = highly flammable substance

H = harmful or irritating substance

O = oxidising substance

N = harmful to the environment

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: info@cie.org.uk,

by phone: +44 1223 553554,

by fax: +44 1223 553558,

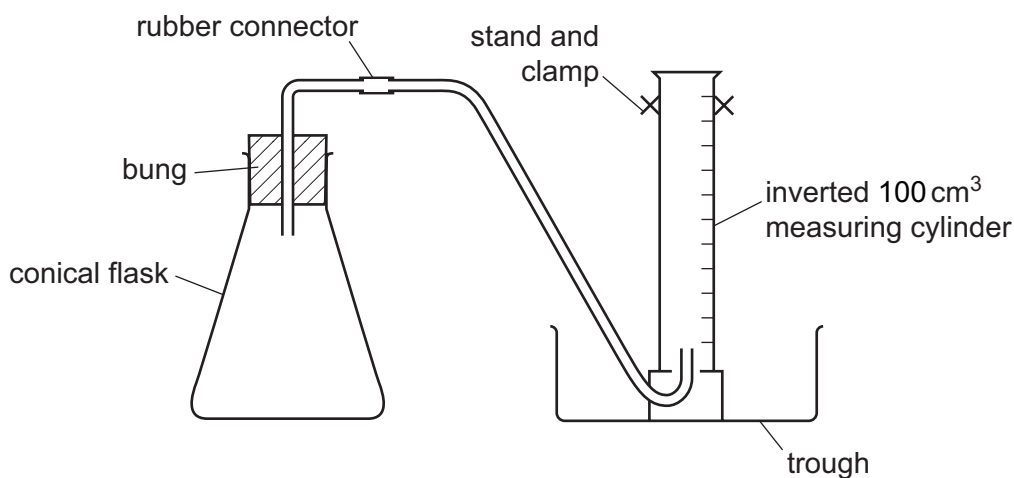
stating the Centre number, the nature of the query and the syllabus number quoted above.

This document consists of **6** printed pages.

For Question 1

Each candidate will require

(a) apparatus for a rate experiment



Note: The trough should be large enough to allow the measuring cylinder to be filled with water in the trough.

[F] (b) two 15 cm strips of magnesium ribbon

(c) 100 cm³ of sulfuric acid of concentration 0.2 mol/dm³, in a beaker labelled **acid X**

(d) 100 cm³ of hydrochloric acid of concentration 0.2 mol/dm³, in a beaker labelled **acid Y**

(e) one 250 cm³ conical flask

(f) a stop-clock or timer which can measure to the nearest second

(g) access to water and distilled water

(h) one 100 cm³ measuring cylinder

50 cm³ of acid X + 15 cm of magnesium ribbon should produce approximately 50 cm³ of gas in 3 minutes.

50 cm³ of acid Y + 15 cm of magnesium ribbon should produce approximately 25 cm³ of gas in 3 minutes.

For Question 2

Each candidate will require

[O] [H] (a) a stoppered boiling tube containing about 1 g of calcium nitrate and 1 g of zinc carbonate thoroughly mixed, labelled **solids C and D**
Note: Calcium nitrate should be freshly purchased.

[C] (b) aqueous sodium hydroxide of concentration 2 mol/dm^3 , labelled **aqueous sodium hydroxide**

[H] (c) aqueous ammonia of concentration 2 mol/dm^3 , labelled **aqueous ammonia**

[H] (d) limewater and suitable apparatus to test for carbon dioxide, labelled **limewater**

(e) hydrochloric acid of concentration 1 mol/dm^3 , labelled **hydrochloric acid**

(f) aluminium foil

(g) access to water and distilled water

(h) pH indicator papers and chart

(i) rack of test-tubes

(j) splints

(k) one boiling tube and cork or bung to fit

(l) spatula

(m) one 10 cm^3 measuring cylinder

(n) one Bunsen burner and matches

(o) test-tube holder

(p) teat pipettes

(q) filtration apparatus: filter papers and funnel

Note: Labels do not need to include concentrations.

THE SUPERVISOR'S REPORT IS ON PAGES 5 AND 6

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

REPORT ON PRACTICAL CHEMISTRY

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 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 so as to maintain fully the security of the examination.

NAME
(in block capitals)

SIGNED (Principal)

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