

For Question 1

Each candidate will require

- (a) one 50 cm³ measuring cylinder
 - (b) one burette, 50 cm³
 - (c) one or more 250 cm³ conical flasks
- [H] (d) 100 cm³ of aqueous hydrochloric acid of concentration 0.1 mol/dm³, labelled 'hydrochloric acid for question 1'
- [C] (e) about 50 cm³ of aqueous sodium hydroxide of concentration 0.05 mol/dm³, labelled 'solution F'
- [C] (f) about 50 cm³ of aqueous sodium hydroxide of concentration 0.1 mol/dm³, labelled 'solution G'
- (g) access to water and distilled water
 - (h) a white tile
- [H] (i) phenolphthalein indicator
- (j) teat pipette

For Question 2

Each candidate will require

- (a) a stoppered test-tube containing about 1.0g of ammonium sulfate crystals $(\text{NH}_4)_2\text{SO}_4$, labelled 'solid **W**'
 - (b) a stoppered test-tube containing about 1.0g of iron(II) sulfate crystals, $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$, labelled 'solid **X**'
 - (c) pH indicator papers/chart
 - (d) rack of test-tubes
 - (e) distilled water
 - (f) splints
 - (g) cork or bung to fit test-tubes
- [C] (h) aqueous nitric acid of concentration 1.0 mol/dm^3
- [C] (i) aqueous sodium hydroxide of concentration 1.0 mol/dm^3
- [T] (j) aqueous barium chloride of suitable concentration to give a positive sulfate test
- [C] (k) aqueous hydrochloric acid of concentration 1 mol/dm^3
- (l) aqueous silver nitrate of suitable concentration to give a positive halide test
 - (m) aqueous potassium manganate(VII) of concentration 0.01 mol/dm^3
 - (n) spatulas
 - (o) a 10 cm^3 measuring cylinder
 - (p) a Bunsen burner and matches
 - (q) test-tube holder
 - (r) teat pipettes

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 2010

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 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 so as to maintain fully the security of the examination.

NAME
(in block capitals)

SIGNED (Principal)

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