



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Ordinary Level

BIOLOGY

5090/03

Paper 3 Practical Test

October/November 2009

CONFIDENTIAL INSTRUCTIONS

1 hour 15 minutes

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



If you have any problems or queries regarding these Instructions, please contact CIE
by e-mail: 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 **4** printed pages, **2** blank pages and a Supervisor's Report.



READ THESE INSTRUCTIONS FIRST

These instructions give details of the apparatus required by each candidate for each experiment in this paper. A summary of the questions that will be presented to the candidates is included, where appropriate, to allow the Biology teacher to test the apparatus appropriately. **No access to the question paper is permitted in advance of the examination session.**

If a candidate breaks any of the apparatus, or loses any of the material supplied, the matter should be rectified and a note made in the Supervisor's Report.

If arrangements are made for different sessions for different groups of candidates, care must be taken to ensure that the different groups of candidates are effectively isolated so that **no information passes between them.**

Supervisors are advised to remind candidates that **all** substances in the examination should be treated with caution. Pipette fillers 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.

The following codes are used in the left margin where relevant.

C = corrosive substance

F = highly flammable substance

H = harmful or irritating substance

O = oxidising substance

T = toxic substance

Instructions to Supervisors

Each candidate must be supplied with:

For question 1

- (i) 23–25 seeds of the Scarlet Runner bean (*Phaseolus*) in a dish, labelled **W1**. Please check that there is a range in length (roughly 6–10mm).
- (ii) 2 seeds of the same type as **W1** that have been soaked in water for 48 hours, labelled **W2**.
- (iii) White tile.
- (iv) Hand lens.
- (v) Scalpel (preferably not with detachable blade), or sharp knife.
- (vi) Biuret reagents, labelled in a way familiar to the Candidates and with means of dispensing drops.
- (vii) Ruler (mm).

For question 2

- (i) A few plain cornflakes, breakfast cereal, labelled **W3**.
- (ii) 2 medium sized potato crisps, plain (or salted), labelled **W4**.
- (iii) Supply of ethanol, for fat test.
- (iv) Water, with dropper.
- (v) 2 test-tubes with stand.
- (vi) Labels for test-tubes.
- (vii) Paper towels.

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- 3 A plan of work benches, giving details of the candidate numbers of the places occupied by the candidates for each session, must be enclosed with the scripts. The space below can be used for this, or it may be on separate paper.

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.

Signed.....

Name (in block capitals).....

Centre number.....

Centre name.....

If scripts are required by CIE to be despatched in more than one envelope, it is essential that a copy of the relevant Supervisor's report and the appropriate seating plan(s) are sent inside **each envelope**.

