CAMBRIDGE INTERNATIONAL EXAMINATIONS General Certificate of Education Ordinary Level

BIOLOGY

PAPER 3 Practical Test

CONFIDENTIAL INSTRUCTIONS

5090/3

MAY/JUNE SESSION 2002

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.

Instructions for preparing apparatus

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**.

If you have any problems or queries regarding these Instructions, please contact CIE by e-mail: International@ucles.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.

These instructions consist of 2 printed pages.



SUPERVISOR'S INSTRUCTIONS

Each candidate must be supplied with the following apparatus and materials.

Question 1

Candidates will be carrying out tests for reducing sugar on three prepared solutions and on two samples of biological material.

- (i) Three test-tubes, labelled **T1**, **T2** and **T3**, filled to a depth of 4 cm with the following solutions.
- (ii) T2 contains a solution of 20 g of glucose made up to 1 dm³ with water.
 T3 contains 20 cm³ of solution T2 made up to 1 dm³ with water.
 T1 contains 20 cm³ of solution T3 made up to 1 dm³ with water.
- (iii) Approximately 1 cm³ of freshly peeled potato, covered in water, in a container, labelled **S1**.
- (iv) Approximately 1 cm³ of freshly peeled apple, covered in water, in a container, labelled S2.
- (v) Benedict's solution and dropper.
- (vi) Sight of a clock.
- (vii) A glass marker pen, or labels.
- (viii) Three paper towels.
- (ix) A ruler (cm/mm).
- (x) A scalpel.
- (xi) A test-tube holder.
- (xii) A test-tube rack to hold at least five test-tubes.
- (xiii) Two clean, empty test-tubes.
- (xiv) A water-bath for heating test-tubes with Benedict's solution.
- (xv) A small beaker containing about 50 cm^3 of water.
- (xvi) A white tile.
- (xvii) Access to tap and sink.

Question 2

Candidates will be expected to make comparisons between a transversely sectioned tomato and a photograph of a different fruit.

(i) Half a fresh tomato cut transversely, labelled S3.

The Supervisor's Report is to be filled in on the back page of the first candidate's script. Please ensure that this is done.