

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**BIOLOGY**

**0610/05**

Paper 5 Practical Test

May/June 2004

**1 hour**

**CONFIDENTIAL INSTRUCTIONS**

**Great care should be taken 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.

It is assumed that the ordinary apparatus of a science laboratory will be available, including a supply of purified water (distilled or deionised).

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 the 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 where relevant.

**C** = corrosive substance

**F** = highly flammable substance

**H** = harmful or irritating substance

**O** = oxidising substance

**T** = toxic substance

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.

This document consists of **2** printed pages.



Supervisor's instructions

### Question 1

Each candidate must be provided with the following apparatus and materials:

- (i) 2 large test-tubes (boiling tubes)
- (ii) a measuring pipette/syringe/measuring cylinder [calibrated in  $1\text{ cm}^3$ ] with access to a means of washing
- (iii) supporting test-tube rack
- (iv) 2 glass rods
- (v)  $25\text{ cm}^3$  of water in a beaker, labelled as such
- (vi) marker or wax pencil or adhesive labels
- (vii) a stopclock or view of a clock
- (viii)  $25\text{ cm}^3$  1% starch solution, labelled as such
- (ix) tube labelled **A2** containing  $1\text{ cm}^3$  0.5% sodium chloride solution and  $2\text{ cm}^3$  1% amylase\*
- (x) tube labelled **B2** containing  $1\text{ cm}^3$  water and  $2\text{ cm}^3$  1% amylase\*

\*The amylase solution must be prepared freshly just before the examination is due to start.

- (xi) white tile, with hollows if possible
- (xii) iodine solution labelled as such preferably in a dropper bottle. (candidates need to dispense this drop by drop)
- (xiii) paper towels

### Question 2

Each candidate must be provided with the following apparatus and materials:

- (i) a specimen of winged fruit, labelled **S1**. This could be *Acer*, *Fraxinus*, *Tipuana*, *Ailanthus*, *Jacaranda*, *Liriodendron*, *Tilia*, *Ulmus*, but not a gymnosperm. If a member of the genus *Acer* is used then only supply one fruit of the pair of fruits
- (ii) hand lens
- (iii) scissors
- (iv) ruler (with mm)

### Safety

Teachers are expected to instruct candidates to take such precautions as are laid down or advised by their Education Authority/School or College.

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