www.dynamicpapers.com

Cambridge Assessment International Education

# Cambridge IGCSE™

**BIOLOGY** **0610/52**

Paper 5 Practical Test **October/November 2025**

CONFIDENTIAL INSTRUCTIONS

*2592890128*

**This document gives details of how to prepare for and administer the practical exam.**

**The information in this document and the identity of any materials supplied by Cambridge International are confidential and must NOT reach candidates either directly or indirectly.**

**The supervisor must complete the report at the end of this document and return it with the scripts.**

**INSTRUCTIONS**

- If you have any queries regarding these confidential instructions, contact Cambridge International stating the centre number, the syllabus and component number and the nature of the query.
  email info@cambridgeinternational.org
  phone +44 1223 553554

This document has **8** pages. Any blank pages are indicated.


© UCLES 2025

www.dynamicpapers.com


## General information about practical exams

Centres must follow the guidance on science practical exams given in the *Cambridge Handbook*.

### Safety

Supervisors must follow national and local regulations relating to safety and first aid.

Only those procedures described in the question paper should be attempted.

Supervisors must inform candidates that materials and apparatus used in the exam should be treated with caution. Suitable eye protection should be used where necessary.

The following hazard codes are used in these confidential instructions, where relevant:

| | | | |
|---|---|---|---|
| **C** | corrosive | **MH** | moderate hazard |
| **HH** | health hazard | **T** | acutely toxic |
| **F** | flammable | **O** | oxidising |
| **N** | hazardous to the aquatic environment | | |

Hazard data sheets relating to substances used in this exam should be available from your chemical supplier.

### Before the exam

- The packets containing the question papers must **not** be opened before the exam.
- It is assumed that standard school laboratory facilities, as indicated in the *Guide to Planning Practical Science*, will be available.
- Spare materials and apparatus for the tasks set must be available for candidates, if required.

### During the exam

- It must be made clear to candidates at the start of the exam that they may request spare materials and apparatus for the tasks set.
- Where specified, the supervisor **must** perform the experiments and record the results as instructed. This must be done **out of sight** of the candidates, using the same materials and apparatus as the candidates.
- Any assistance provided to candidates must be recorded in the supervisor's report.
- If any materials or apparatus need to be replaced, for example, in the event of breakage or loss, this must be recorded in the supervisor's report.

### After the exam

- The supervisor must complete a report for each practical session held and each laboratory used.
- Each packet of scripts returned to Cambridge International must contain the following items:
  - the scripts of the candidates specified on the bar code label provided
  - the supervisor's results relevant to these candidates
  - the supervisor's reports relevant to these candidates
  - seating plans for each practical session, referring to each candidate by candidate number
  - the attendance register.

© UCLES 2025

www.dynamicpapers.com


## Specific information for this practical exam

During the exam, the supervisor (**not** the invigilator) must do the experiment in Question 1 and record the results on a spare copy of the question paper, clearly labelled 'supervisor's results'.

**Question 1**

Each candidate should be provided with:

| hazard | materials and apparatus | quantity per candidate |
|---|---|---|
| | active yeast suspension (not including foam) in a beaker with a pouring lip, labelled **yeast suspension** | 80 $cm^3$ |
| | 5% glucose solution in a 100 $cm^3$ beaker labelled **5% glucose solution** | 20 $cm^3$ |
| | distilled water in a 100 $cm^3$ beaker labelled **distilled water** | 20 $cm^3$ |
| | standard test-tubes (approximately 125 mm × 15 mm)<br><br>The standard test-tubes must be able to fit inside the large test-tubes when inverted, as shown in Fig. 1.1 on page 4. | 2 |
| | large test-tubes (approximately 150 mm × 25 mm) | 2 |
| | test-tube rack to hold large test-tubes | 1 |
| | tap water at approximately 50 °C<br><br>Candidates will raise their hand when they are ready for hot water to be supplied. | approximately 150 $cm^3$ |
| | permanent marker pen | 1 |
| | stop-clock | 1 |
| | 5 $cm^3$ syringe | 2 |
| | empty 250 $cm^3$ beaker labelled **water-bath** | 1 |
| | paper towels | 5 |
| | gloves | 1 pair |
| | suitable eye protection | 1 |
| | 30 cm ruler with a mm scale (also needed for Question 3) | 1 |

© UCLES 2025

**[Turn over**

www.dynamicpapers.com


**Preparation of materials**

*5% glucose solution*
100 $cm^3$ of a 5% glucose solution can be prepared by dissolving 5 g of glucose in 80 $cm^3$ of distilled water and then adding more distilled water to make a total volume of 100 $cm^3$.

*Yeast suspension*
Add 50 g of fast-acting yeast to 500 $cm^3$ of warm water (approximately 35 °C to 40 °C) and stir to mix. Add more warm water to make up to 1 $dm^3$. Ensure that the yeast suspension is active and producing foam before giving it to candidates. Skim the foam from the top of the suspension before giving it to candidates.

Before the exam it is recommended that centres trial how long it takes for the yeast to become active (producing foam) as some yeasts require more time. The yeast suspension should be made on the day of the exam.

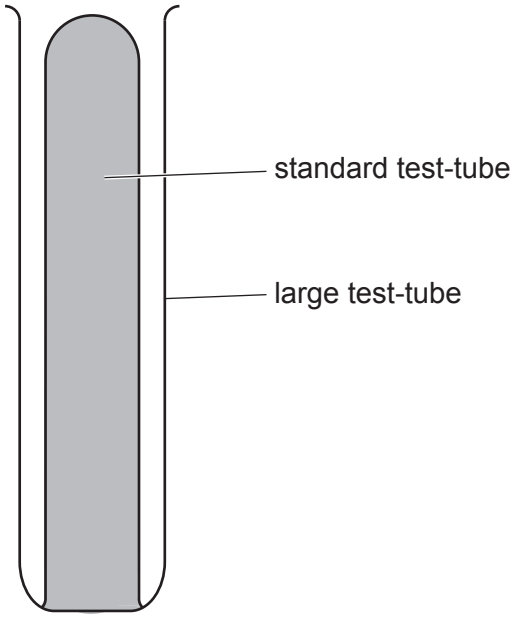


**Fig. 1.1**

© UCLES 2025

www.dynamicpapers.com


**BLANK PAGE**

© UCLES 2025

**[Turn over**

www.dynamicpapers.com


**BLANK PAGE**

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.

© UCLES 2025

www.dynamicpapers.com


## Supervisor's report

Syllabus and component number | | | | | / | | |

Centre number | | | | | |

Centre name .....

Time of the practical session .....

Laboratory name/number .....

**Give details of any difficulties experienced by the centre or by candidates (include the relevant candidate names and candidate numbers).**

You must include:
- any difficulties experienced by the centre in the preparation of materials
- any difficulties experienced by candidates, e.g. due to faulty materials or apparatus
- any specific assistance given to candidates.

© UCLES 2025

www.dynamicpapers.com


**Declaration**

1 Each packet that I am returning to Cambridge International contains all of the following items:
- the scripts of the candidates specified on the bar code label provided
- the supervisor's results relevant to these candidates
- the supervisor's reports relevant to these candidates
- seating plans for each practical session, referring to each candidate by candidate number
- the attendance register.

2 Where the practical exam has taken place in more than one practical session, I have clearly labelled the supervisor's results, supervisor's reports and seating plans with the time and laboratory name/number for each practical session.

3 I have included details of difficulties relating to each practical session experienced by the centre or by candidates.

4 I have reported any other adverse circumstances affecting candidates, e.g. illness, bereavement or temporary injury, directly to Cambridge International on a *special consideration form*.

Signed ..... (supervisor)

Name (in block capitals) .....

© UCLES 2025