CAMBRIDGE
International Education

# Cambridge O Level

**BIOLOGY** **5090/31**

Paper 3 Practical Test **May/June 2026**

CONFIDENTIAL INSTRUCTIONS

*5680125422*

**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.

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# 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.

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## 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'.

### Apparatus and materials for Question 1

Each candidate will require the following apparatus and materials.

| hazard | apparatus and materials | per candidate | label |
|---|---|---|---|
| | teat pipettes | 6 | |
| | white spotting tile (with at least 5 deep wells) | 1 | |
| | 10 $cm^3$ of 0.1% DCPIP (2,6-dichlorophenolindophenol) solution, in a small beaker. See Note 1. | 1 | **DCPIP** |
| | 10 $cm^3$ of 0.25% concentration of vitamin C solution in a small beaker | 1 | **0.25% vitamin C** |
| | 10 $cm^3$ of 0.50% concentration of vitamin C solution in a small beaker | 1 | **0.50% vitamin C** |
| | 10 $cm^3$ of 0.75% concentration of vitamin C solution in a small beaker | 1 | **0.75% vitamin C** |
| | 10 $cm^3$ of 1.00% concentration of vitamin C solution in a small beaker | 1 | **1.00% vitamin C** |
| | 10 $cm^3$ of lemon juice, lime juice, pineapple juice or other locally available lightly coloured fruit juice in a small beaker. See Note 2. | 1 | **fruit juice X** |
| | paper towels | 2 | |

Note 1
The DCPIP will decolourise readily by oxidation with air and should be freshly prepared and kept in a stoppered bottle, preferably made of dark glass. The DCPIP should then be transferred into the small beakers just before the exam.

Note 2
The fruit juice should be tested to ensure it will decolourise two drops of DCPIP solution using less than a full well of juice.
The apparatus should be tested to ensure that the spotting tiles are deep enough. They should be big enough to contain two drops of DCPIP plus enough drops of 0.50% vitamin C to decolourise this amount of DCPIP.

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**Apparatus for Question 2**

| hazard | apparatus and materials | per candidate | label |
|---|---|---|---|
| | 30 cm ruler graduated in mm | 1 | |

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## 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.

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**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) .....

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