
BIOLOGY

5090/31

Paper 3 Practical Test

October/November 2018

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 queries regarding these Confidential Instructions, please contact Cambridge stating the Centre number, the nature of the query and the syllabus number quoted above.

email info@cie.org.uk
phone +44 1223 553554
fax +44 1223 553558

This document consists of **5** printed pages and **3** blank pages.

INSTRUCTIONS FOR PREPARING APPARATUS

These Confidential 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.

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 suitable eye protection 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

HH health hazard

F flammable

N hazardous to the aquatic environment

MH moderate hazard

T acutely toxic

O oxidising

Centres are reminded that they are **not** permitted to open the Question Paper envelopes before the examination. There are **no** exceptions to this. Centres should also refer to the Cambridge Handbook.

If there are any difficulties with any aspect of setting up this practical examination that the Centre is not able to resolve, it is essential for Centres to contact Cambridge as soon as possible by email to info@cie.org.uk, by fax to +44 1223 553558 or by phone to +44 1223 553554.

SUPERVISOR'S INSTRUCTIONS – CONFIDENTIAL

Each candidate should be provided with:

Question 1

- (i) A section of a ripe (yellow) edible banana (Cavendish type) approximately 6 cm long. This should be cut just before the practical exam.
- (ii) white tile or similar suitable cutting surface
- (iii) scalpel, knife or other cutting implement
- (iv) forceps
- (v) ruler (mm)
- (vi) iodine solution (**N**) in dropper bottle or container with dropper labelled **iodine solution**
- (vii) teat pipette
- (viii) approximately 100 cm³ water in a small beaker/container labelled **water**
- (ix) small beaker/container labelled **waste water**
- (x) Benedict's solution in dropper bottle or container with dropper labelled **Benedict's solution**
- (xi) biuret solution (**C**) in dropper bottle or container with dropper labelled **biuret solution**
- (xii) large test-tube
- (xiii) test-tube rack
- (xiv) beaker to act as a water bath for large test-tube
- (xv) timer or view of a clock with second-hand
- (xvi) stirring rod
- (xvii) supply of hot water (approximately 70 °C). Candidates have been instructed to raise their hands to indicate when they need hot water, which you should pour into their water bath.
Caution: water will be hot
- (xviii) paper towels
- (xix) tongs

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 International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

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

This form should be completed and sent to Cambridge with the scripts.

SUPERVISOR'S REPORT

Cambridge Ordinary Level

October/November 2018

The Supervisor or teacher responsible for the subject should provide the following information.

- 1 Was any difficulty experienced in providing the necessary materials? If so, give brief details.

- 2 Give details of any difficulties experienced by particular candidates, giving names and candidate numbers. Reference should be made to:
 - (a) difficulties with specimens or materials;
 - (b) accidents to apparatus or materials;
 - (c) assistance provided in case of colour blindness;
 - (d) any other information that is likely to assist the Examiner, especially if this cannot be discovered from the scripts.

Other cases of individual hardship e.g. illness or disability, should be reported directly to Cambridge on the normal Special Consideration Form as detailed in the Cambridge Handbook.

- 3 During the examination, the Supervisor should, **out of sight of the candidates**, carry out **Question 1(b)(i)** and **(c)(ii)** using the same apparatus and reagents as the candidates. These results should be written in the Supervisor's Report which should be enclosed with the candidates' scripts. If the scripts are in several packets, please ensure that a copy of the Supervisor's Report is enclosed with each packet of scripts.

- 4 Enclose a seating plan of work benches with the scripts, giving details of the candidate numbers for the places occupied by the candidates for each session.

Temperature of examination room°C

Result for **Question 1(b)(i)**:

Result for **Question 1(c)(ii)**:

Declaration (to be signed by the Supervisor)

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 Cambridge 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**.