

THE SHOOTING STARS EDUCATIONAL CONSULTANCY

Kenya Certificate of Secondary Education

231/3(a) Inst. Sch.

Paper 3



CONFIDENTIAL

BIOLOGY

PRACTICAL

June. 2023

INSTRUCTIONS TO SCHOOLS

The information contained in this paper is to enable the head of the school and the teacher in charge of Biology to make adequate preparations for this year's Biological Practical examination.

NO ONE ELSE should have access to this paper or acquire knowledge of its contents. Great care **MUST** be taken to ensure that the information herein does **NOT** reach the candidate either directly or indirectly. The teacher or laboratory technician in charge of Biology should **NOT** perform any of the experiments or give information related to these instructions to the candidates.

These instructions consist of 2 printed pages.



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231/3 Inst.Sch.



Turn Over

(a) Each candidate will require the following:

1. Two 250ml empty glass beakers.
2. Two empty petri-dish.
3. Glass rod.
4. A half ($\frac{1}{4}$) portion of ripe Tomato fruit.
5. 4ml of Solution **F** in a boiling tube.
6. Specimen **N**.
7. Hand lens.
8. 200ml of Solutions S_1
9. 200ml of Solution S_2
10. Roll of tissue paper
11. A dropper
12. 2 test tubes in a rack and one 10ml measuring cylinder.
13. One raw de-shelled hen's egg (should be intact) in 250ml glass beaker filled with 200ml of solution S_1 labelled **Q**.
14. One raw de-shelled hen's egg (should be intact) in 250ml glass beaker filled with 200ml of solution S_2 labelled **R**.

N/B: Provide Q and R for every 5 students. Set up Q and R 30min before start of exams.

Preparation of solutions and specimens

(a) Preparation of solutions S_1 and S_2

*Solution S_1 - Dissolve 100 grams of solid **K** (sodium chloride) in 200 mL of water*

Solution S_2 - Completely de-ionized water preferably distilled water. (DO NOT USE TAP WATER)

(b) Preparation of specimens

- Submerge raw chicken egg in **vinegar/2molar hydrochloric acid** for 48hours before the practical, then fully wash them under running water to remove the acid. Supply them in beakers labelled **Q** and **R**.
- Specimen **N**- Mature twig of *Biden Pilosa* with fruits and at least a leaf. (This to be supplied while fresh)

(c) Preparation of solutions **F**

- Dissolve DCPIP solid (**solid A**) in a litre of solution.

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