

COMA JOINT EXAM 2014

BIOLOGY 231/3

PAPER 3

JUNE 2014

This document must not be seen by the candidates whatsoever

CONFIDENTIAL INSTRUCTION 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 Biology 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 candidates either directly or indirectly. The teacher in charge of Biology **SHOULD NOT** perform any of the experiments or give any information related to these instructions to the candidates.

Each candidate will require the following:

- Flour of dry Soya beans (2g) labelled **Solid A**.
- Flour of dry maize grains (2g) labelled **Solid B**
- 2% copper II sulphate solution (4ml)
- 10% sodium hydroxide solution (8ml)
- Benedict's solution (9ml)
- Measuring cylinder that can measure 10 -50ml
- 2 Boiling tubes
- 6 test tubes
- Distilled water in a wash bottle
- Test tube holder
- Flower of *Ipomoea kituiensis* ("Obinju" in Luo) labelled **specimen R**
- Bean pod labelled **specimen Q**
- Medium sized orange fruit labelled **specimen P**
- Means of heating / Bunsen burner.
- Scalpel / knife
- 6 pieces of labels
- Iodine solution (3ml) with a dropper