#### **BIOLOGY**

Paper 3 July/August 2016

## **CONFIDENTIAL INSTRUCTIONS**

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 Joint Evaluation 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.

#### Requirements:

Each candidate should be provided with:

- hibscus flower (complete) labelled M
- sharp scapel
- hand lens
- 10 bean seeds per student soaked in water for 24hrs (or overnight)
- hydrogen peroxide 20ml (freshly prepared)
- wooden splint
- 1% copper sulphate solution
- 10% sodium hydroxide solution
- Benedict's solution
- means of heating
- 5 test tubes
- iodine solution
- measuring cylinder (10ml)
- pestle and mortar (shared)
- metallic spatula
- labels (five)

#### **CHEMISTRY**

Paper 3 July/August 2016

## CONFIDENTIAL INSTRUCTIONS

The information contained in this paper is to enable the head of the school and the teacher in charge of Chemistry to make adequate preparations for the Chemistry 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 Chemistry should NOT perform any of the experiments infront of candidates.

### Requirements for candidates

In addition to the fittings, substances and apparatus ordinarily found in a Chemistry laboratory each candidate will require

- About 50cm³ of solution B
   About 100cm³ of solution C
   One 25ml pipette

- 3. One 25ml pipette 4. One burette 0-50ml
- 5. Two conical flasks
- 6. One thermometer
- 7. Stop watch / stop clock
- 8. 250ml volumetric flask
- 9. 6 test tubes
- 10. 250cm<sup>3</sup> plastic beaker 11. One boiling tube
- 12. Metallic spatula
- 13. Filter funnel
- Retort stand Means of labelling
- 16. Distilled water in 500ml bottle
- 17. Filter paper
- 18. 100ml measuring cylinder
- 10ml measuring cylinder
- 20. 5 pieces of magnesium ribbon (labelled M each 1cm long)
  21. Solid Q 4.5g ammonium nitrate
  22. Boiling tube

- Access to:

  1. 2M NaOH supplied with a dropper
  2. 2M NH<sub>3(aq)</sub> supplied with a dropper
  3. 2M HNO<sub>3(aq)</sub> supplied with a dropper
  4. Dilute Ba(NO<sub>3</sub>)<sub>2</sub> solution
  5. Phenolphalein indicator
  6. Dilute Pb(NO<sub>3</sub>) solution
  7. Dilute potassium iodide
  8. Acidified KMnO<sub>3</sub> supplied with a dropper

- 8. Acidified KMnO<sub>4</sub> supplied with a dropper (freshly prepared)
- 9. NaCl solution
- 10. KI solution

11. Means of heating Note: solid X - mixture of PbCO<sub>3(s)</sub> and Na<sub>2</sub>SO<sub>3(s)</sub>

ratio 1:1

Solution B - 2M HCl Solution C - 0.1M NaOH Acidified KMnO<sub>4</sub> is 0.1M

#### **PHYSICS**

Paper 3 July/August 2016

## **CONFIDENTIAL INSTRUCTIONS**

Each candidate will require:

#### **Question 1**

Each candidate will require:

- a boiling tube
- a measuring cylinder (10ml or 25ml)
- a half metre rule
- some water in a container
- a stand complete with boss and clamp
- vernier callipers (may be shared)
- a glass block (approximately 10cm x 6cm x 2cm)
- a plain sheet of paper
- five optical pins

### **Question 2**

- an ammeter (0 2.5A)
- a voltmeter (0 5V)
- nichrome wire (SWG 28) mounted on a mm scale
- a switch
- two new dry cells (size D)
- a cell holder
- six connecting wires at least four with crocodile clips at one end
- a micrometer screw gauge (may be shared)

### **GEOGRAPHY**

Paper 1 July/August 2016

## **CONFIDENTIAL INSTRUCTIONS**

Provide a map of Busia 1:50,000 (sheet 101/1)

#### **CLOTHING AND TEXTILES**

Paper 2 July/August 2016

## **CONFIDENTIAL INSTRUCTIONS**

### **INSTRUCTIONS TO SCHOOLS**

The following should be provided:

- 1. Enough sewing equipment.
- 2. Plain light weight cotton fabric 65cm x 90cm wide
- 3. Sewing thread to match the fabric

NB: Fabric in excess of the amount specified must not be supplied to the candidates.