

**233/3 Inst.Sc  
CHEMISTRY  
Practical  
Paper 3  
Oct./Nov. 2009**

**THE KENYA NATIONAL EXAMINATIONS COUNCIL  
Kenya Certificate of Secondary Education  
CHEMISTRY  
Paper 3  
PRACTICAL**

**INSTRUCTIONS TO SCHOOLS**

*The information contained in this paper is to enable the head of the school and the teacher in charge of Chemistry to make adequate preparation for this year's 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 in the same room as the candidates nor make the results of the experiments available to the candidates or give any other information related to the experiments to the candidates. Doing so will constitute an examination irregularity which is punishable.*

**These instructions consists of 8 printed pages.**

In addition to the fittings and apparatus found in a Chemistry Laboratory, each candidate will require the following:

- A
- (1) ✓ 1.8g of solid A weighed accurately and supplied in a stoppered container
  - (2) ✓ about 60cm<sup>3</sup> of solution B
  - (3) one 250ml. volumetric flask
  - (4) one pipette, 25.0ml. and a pipette filler
  - (5) one burette 0 - 50ml
  - (6) 2 labels
  - (7) about 120cm<sup>3</sup> of solution C
  - (8) three **dry** conical flasks (250ml)
  - (9) one **dry** filter funnel
  - (10) one 250ml. **dry** beaker
  - (11) one filter paper whatman 125mm No.1
  - (12) ✓ 0.5g of solid E supplied in a stoppered container
  - (13) six dry test-tubes
  - (14) one 100ml. measuring cylinder
  - (15) one 10ml. measuring cylinder
  - (16) about 500cm<sup>3</sup> of distilled water supplied in a wash bottle
  - (17) one boiling tube
  - (18) one glass rod
  - (19) ✓ 0.5g of solid F supplied in a stoppered container
  - (20) 5cm<sup>3</sup> of **absolute** ethanol supplied in a stoppered container on the day of examination
  - (21) ✓ 0.2g of solid sodium hydrogen carbonate
  - (22) spatula
  - (23) one test-tube holder

B Access to:

- (1) Bromine water supplied with a dropper
- (2) acidified potassium dichromate (VI) supplied with a dropper
- (3) 2M aqueous ammonia supplied with a dropper
- (4) Bunsen burner
- (5) tissue paper
- (6) aqueous lead (II) nitrate supplied with a dropper
- (7) universal indicator solution pH 1 - 14 supplied with a dropper
- (8) pH chart range 1 - 14
- (9) freshly prepared methyl orange indicator supplied with a dropper