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

1. about 150 cm^3 of solution **A** labelled solution **A**
2. about 150 cm^3 of solution **B** labelled solution **B**
3. about 80 cm^3 of solution **C** labelled solution **C**
4. one pipette 25.0 ml
5. one pipette filler
6. one volumetric flask (250.0 ml)
7. four labels
8. about 500 cm^3 of distilled water
9. one burette 50.0 ml
10. three conical flasks
11. one 10 ml measuring cylinder
12. one 100ml measuring cylinder
13. two boiling tubes
14. one thermometer -10° C to 110° C
15. about 0.5 g of solid **E** supplied in a stoppered container
16. six clean dry test-tubes
17. about 0.1 g of solid **F** supplied in a stoppered container
18. about 0.5 g of solid **G** supplied in a stoppered container
19. pH chart 1-14; and universal indicator solution supplied with a dropper
20. one 100ml beaker
21. one **metallic** spatula
22. one clean dropper

Access to

1. Phenolpthalein indictor supplied with a dropper
2. 2 M sulphuric (VI) acid supplied with a dropper
3. 2 M sodium hydroxide supplied with a dropper
4. 0.5 M potassium iodide supplied with a dropper
5. Bromine water supplied with a dropper
6. Acidified potassium manganate (VII) supplied with a dropper
7. Bunsen burner.

PREPARATIONS

1. Solution **A** is prepared by taking 180.0 cm^3 of concentrated hydrochloric acid (**specific gravity** 1.18) adding it to 600 cm^3 of distilled water in a 1 litre volumetric flask and diluting it to the mark. Label this solution as **solution A**.

2. Solution **B** is prepared by dissolving 80.0 g of sodium hydroxide pellets in 800 cm^3 of distilled water and diluting it to the mark. Label it as **solution B**.

3. Solution **C** is prepared by dissolving 25g of solid **C** in 600 cm^3 of distilled water and diluting it to the mark. Label this as **solution C**.

4. Bromine water is prepared by taking 1 cm^3 of **liquid bromine** and dissolving it in 100 cm^3 of distilled water in a fume cupboard. This must be fleshly prepared and supplied in a dropper bottle.

5. Acidified potassium manganate (VII) is prepared by dissolving 3.16g of solid potassium manganate (VII) in about 600 cm^3 of 2 M sulphuric (VI) acid and adding distilled water to make 1 litre.

N.B: Solids **C, E, F** and **G** will be supplied by the KNEC.

1st Session

Candidates' Index Numbers

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Question 1: Draw and complete table I as per the question paper.

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Question 1: Draw and complete table II as per the question paper.

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This form **MUST** be completed and returned in the envelope containing the scripts.

Kenya Certificate of Secondary Education
Oct./Nov. 2010

REPORT ON CHEMISTRY PRACTICAL 233/3

The supervisor is required to:

(a) give the names and index numbers of candidates in each session.

(b) ask the teacher in charge of chemistry to perform the experiments in question **1** **(NOT IN THE SAME ROOM WITH CANDIDATES)** and write the results in the tables as per the question paper.

(c) give the details of any difficulties experienced by particular candidates writing their names and index numbers on page 8.

Details required include:

(i) difficulties caused by faulty apparatus

(ii) accidents caused by chemicals or apparatus

(iii) physical handicapness e.g colour blindness supported by medical evidence.

Name of Supervisor: .....

Centre Number: .....

Signature: .....

Date: .....

Name of the teacher who performed the experiments: .....

TSC No:.....

Signature: ..... **Date:** .....

Seating plan.

2nd Session

Candidate's Index Numbers

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Question 1: Draw and complete table I as per the question paper.

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Question 1: Draw and complete table II as per the question paper.

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Seating plan.