

233/3  
**CHEMISTRY**  
**PRACTICAL**  
**PAPER 3**  
**JULY / AUGUST 2010**  
**CONFIDENTIAL**

**MANGA DISTRICT JOINT EVALUATION TEST – 2010**  
*Kenya Certificate of Secondary Education (K.C.S.E)*

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**INSTRUCTIONS TO SCHOOLS**

The information in this paper is to enable the head of the school and the teacher in-charge of chemistry to make adequate preparations for this year's chemistry practical examination.

Great care **MUST** be taken to ensure that the information here in does not reach the candidates either directly or indirectly. The teacher incharge of chemistry should not perform any of the experiments in the same room as the candidates nor make any results of the experiments available to the candidates or give any other information related to the experiments available to the candidates.

Teachers to perform experiments to complete table I, II and III to provide readings for their centres to be enclosed with the candidates scripts to central marking centre.

## REQUIREMENTS FOR CANDIDATES

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

1. About 80cm<sup>3</sup> of solution E
2. About 80cm<sup>3</sup> of solution C
3. About 80cm<sup>3</sup> of solution M
4. One stand + clamp
5. One Burette ( 0-50ml)
6. One 25.0cm<sup>3</sup> pipette
7. One pipette filler
8. Test-tube rack
9. One filter funnel
10. Two 250ml conical flasks
11. One 10ml measuring cylinder
12. One test tube holder
13. About 100cm<sup>3</sup> of distilled water
14. Stop clock/watch
15. 100ml glass beaker
16. 8 clean dry test tubes
17. 1 white tile
18. 4 stickers/ labels
19. 40cm<sup>3</sup> 2.0m hydrochloric acid labeled L
20. Ruler
21. One boiling tube
22. About 1g of malleic acid labeled Solid Q
23. One metallic spatula
24. 5cm clean piece of magnesium ribbon SOLID X
25. About 1g of sodium hydrogen carbonate]
26. Scapel (one)

### **B Access to:**

1. Means of heating
2. Acidified potassium Manganate (VII) provided with dropper
3. Bromine water in well covered beaker/bottle and provided with dropper
4. Phenolphthalein Indicator provided with a dropper.

### **NOTE:**

- i) Solution C is prepared by dissolving 2.9cm<sup>3</sup> of sulphuric (VI) acid in 400cm<sup>3</sup> of distilled water and diluting to 1 litre.
- ii) Solution E is prepared by dissolving 4g of sodium hydroxide pellets in 400cm<sup>3</sup> of distilled water and diluting to 1 litre.
- iii) Solution M is prepared by dissolving 10cm<sup>3</sup> of conc. HCl (Density 1.18g/cm<sup>3</sup>) in 400cm<sup>3</sup> and diluting with distilled water to 1 litre.
- iv) Acidified potassium manganets (VII) is prepared by dissolving 3.0g of Potassium manganate (VII) in 400ml of 2.0M H<sub>2</sub>SO<sub>4</sub> and diluting with distilled water to one litre.