233/3 CHEMISTRY PAPER 3 PRACTICAL
MWAKICAN JOINT EXAMINATIONS (MJET)
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In addition of the apparatus and fittings found in a chemistry laboratory, each candidate will require the following.

1. About **100cm3** of **0.2m** Hydrochloric acid labeled solution **A**.
2. Accurately weighed **2.4g** anhydrous sodium carbonated labeled solid **X**.
3. About **80cm3** of **1M** sodium hydroxide solution labeled solution **B**.
4. About **120cm3** of **0.7 M** sulphuric (vi) acid solution labeled solution **C.**
5. **250 ml** volumetric flask.
6. **100 ml** measuring cylinder
7. Distilled water
8. **250 m**l plastic beaker (empty)
9. **0 – 110^{0}C** thermometer.
10. One burette **(0 – 50ml)**
11. One **25.0 ml** pipette.
12. Two conical flasks **(250 ml)**
13. Methyl orange indicator
14. Retort stand
15. Pipette filler
16. A white tile
17. **6** dry test tubes
18. **1** boiling tube
19. One filter funnel
20. **1** label
21. Metallic spatula
22. **1.5 g** of solid **K**
23. **1 g** of solid **P**
24. About **0.5g** sodium hydrogen carbonate
25. Glass rod

Access to

1. Means of heating
2. **2M NaOH** with a dropper
3. **2M** Ammonia solution with a dropper
4. **2M** nitric acid with a dropper
5. **0.09M** Barium nitrate solution
6. Universal indicator with a dropper
7. Standard PH chart

NOTE:

1. Solid **K** is a mixture of **$ZnSO_4$** and **$(NH_4)_2SO_4$** in the ratio **1:1.**
2. Solid **P** is oxalic acid.
3. Solution **A** is **0.2M** Hydrochloric acid prepared by dissolving **17.2cm3** of concentrated hydrochloric acid in **1** litre.
4. Solution **B** is **1M** sodium hydroxide prepared by dissolving **40g** in **1** litre.
5. Solution **C** is **0.7M** sulphuric (vi) acid prepared by dissolving **38.5** litres of the acid in a litre of solution.