KALA FORM 4 TRIAL 2024

Kenya Certificate of Secondary Education

CHEMISTRY PRACTICAL

233/3

Confidential

Requirements to candidates

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

1. 2g of solid A (accurately weighed and supplied in a stopped container)
2. 150 cm^3 solution B is 0.05M HCl
3. 250 ml beaker
4. 100 ml measuring cylinder
5. 10ML MEASURING CYLINDER
6. Two dry boiling tubes
7. Six test –tubes
8. Thermometer
9. Beaker
10. Tap water
11. 250 ml beaker
12. Burette
13. Pipette
14. Pipette filler
15. Filter funnel
16. Test-tube holder
17. Two filter paper
18. Stop watch
19. Two labels
20. 500 ml of distilled water
21. Bunsen burner
22. Two 250 ml conical flask
23. 250 ml volumetric flask
24. 0.5g $NaHCO_3$
25. 10 cm^3 of solution C
26. Watch glass
27. 10 cm^3 of LIQUID D
28. 30 cm^3 of sodium hydroxide in a beaker

BENCH REAGENTS/ACCESS REAGENTS

29. **2. 0M sodium hydroxide**
30. **2.0M aqueous ammonia**
31. **2.0M hydrochloric acid**
32. **barium chloride**
33. **2M nitric (V) acid supplied with a dropper**
34. **Methyl orange indicator supplied with a dropper**
35. Acidified $K_2Cr_2O_7$

Preparation of solutions and notes

1. Solid A is sodium tatraborate (borax salt) $Na_2B_4O_7.10H_2O$
2. Solution B is prepared by dissolving 5.0 cm^3 of concentrated HCl acid (specific density 1.18g/cm^3) in 600 cm^3 of distilled water and diluting it to one litre of solution (0.05MHCl)
3. Acidified potassium chromate (VI) is done by dissolving 25g of solid $K_2Cr_2O_7$ in 200 cm^3 of 2M H_2SO_4 and diluting with distilled water to make one litre of solution.
4. Solution C is prepared dissolving 80g of aluminium sulphate and 50g of $CuSO_4$ in distilled water and diluting to one litre
5. LIQUID D IS ABSOLUTE ETHANOL