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**CHEMISTRY PAPER 3**

**FORM 4**

**SEPTEMBER 2022**

**MINCKS GROUP OF SCHOOLS**

**CONFIDENTIAL**

In addition to the equipment and fittings in the Chemistry laboratory, each candidate will require:

1. Solid R (5.0g of oxalic acid in a boiling tube. (Accurately weighed)
2. 100cm3 solution Q (0.25M NaOH)
3. Thermometer (-10oC – 110oC)
4. One 50ml burette
5. Filter funnel
6. Pipette and pipette filler
7. One label
8. 250ml volumetric flask
9. 2 pieces 250ml conical flask
10. About 500ml of distilled water
11. Bunsen burner
12. 0.5 of solid S (maleic acid)
13. 6 test-tubes in a rack
14. Two boiling tubes
15. Test tube holder
16. 1.0g solid T (PbCO3 and ZnSO4 mixture ratio 1:1)
17. Filter paper (Whatman)
18. 1cm length polished magnesium ribbon
19. PH chart scale

**Access to the following**

1. Phenolphthalein indicator supplied with a dropper
2. 2.0M NaOH supplied with a dropper.
3. 2.0M NH3(aq) supplied with a dropper.
4. 2.0M dilute nitric acid supplied with a dropper
5. Lead (II) nitrate solution supplied with a dropper
6. Acidified Barium nitrate solution supplied with a dropper.
7. Potassium iodide solution supplied with a dropper.
8. Acidified potassium manganate (VII) supplied with a dropper
9. Universal indicator

**NOTES: PREPARATIONS**

1. Acidified Barium nitrate is prepared by weighing dissolving 26.0g of Ba(NO3) in 600m3 of distilled water. Add 250cm3 of 2MHNO3 and topping up to 1 litre with distilled water.
2. Acidified potassium manganate (VII) is prepared by dissolving 3.16g of solid KMnO4 in 400cm3 of 1m H2SO4 and making it to one litre with distilled water.
3. Lead nitrate dissolve 33.1g in 800cm3 distilled water and make it to one litre.
4. Solution Q is prepared by accurately weighing 10.0g of sodium hydroxide pellets and dissolving and topping up to 1 litre.
5. 2M NaOH prepared by dissolving 80g of NaOH pellets in 800cm3 of distilled water and top up to 1 litre.
6. 2M NH3(aq) measuring 298cm3 of ammonia solution top up to 1 litre. Label the solution aqueous ammonia (2MNH3(aq)