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CHEMISTRY

PAPER 3

(CONFIDENTIAL)

In addition to the apparatus found in the laboratory each candidate will require the following;

- About 0.5g of solid F
- About 1g of solid G
- 6 clean test-tubes
- Universal indicator solution and a pH chart
- Ethanol supplied with a dropper
- Clean dry metallic spatula
- 1 boiling tube
- Distilled water
- Solution J, about $130cm^3$
- Solution Q, about $160cm^3$
- Solution R, about $30cm^3$
- Screened methyl orange indicator
- Methyl orange indicator
- 100ml measuring cylinder
- Filter paper
- Means of labeling
- Solid P
- Thermometer
- 100ml beaker

Access to the following;

- Ethanol supplied with a dropper
- Concentrated sulphuric (VI) acid supplied with a dropper bottle
- Acidified Potassium dichromate (VI) solution
- Acidified Potassium Manganate (VII) solution.
- 2M $Ba(NO_3)_2$ solution.
- 2M NaOH solution.
- 2M HCl acid.
- Source of heat.

Preparation

- ✓ Solurion J is 0.12M HCL, prepared by adding about 800cm^3 of distilled water to 4.05$cm^3$of concentrated HCL of density 1.08gcm^{-3} and making it to one litre of solution.
- ✓ Solution Q is prepared by dissolving 5.3g of anhydrous sodium carbonate in enough distilled water and making up to one litre of solution.
- ✓ Solution R is prepared by dissolving 15.75g of hydrated barium hydroxide in enough distilled water and top up to one litre of solution.
- ✓ Solid P is 2.0g of oxalic acid weighed accurately and supplied in a stoppered container
- ✓ Solid F is maleic acid
- ✓ Solid G is sodium sulphite