

ACK DIOCESE OF MUMIAS JOINT EVALUATION EXAMINATIONS

233/3

CHEMISTRY

PAPER 3

PRACTICAL

SEPTEMBER 2022

In addition to the common laboratory apparatus and fittings, each candidate shall be supplied with the following:

- 80cm³ of solution F
- 80cm³ of solution G
- 30cm³ of solution N
- One 50cm³ burette
- One 25cm³ pipette
- Two 250cm³ conical flasks
- One 100cm³ measuring cylinder
- One 250cm³ empty beaker
- Distilled water in a wash bottle
- One thermometer
- Source of heat
- Six dry test tubes
- One glass rod
- Two boiling tubes
- One stopwatch
- One clean dropper
- One clean metallic spatula
- One test tube holder
- 0.5g of sodium carbonate
- 0.5g solid P
- 0.5g solid R

The students should have access to the following:

- Phenolphthalein indicator supplied with a dropper
- Bromine water supplied with a dropper
- 2M sodium hydroxide supplied with a dropper
- 1M barium nitrate supplied with a dropper

NOTES

1. Bromine water is prepared by adding 1cm³ of liquid bromine to 100cm³ of distilled water and shaking thoroughly.
2. **Solution N** is prepared by adding 3.16g of potassium manganate (vii) in 200cm³ of 2M sulphuric (vi) acid and adding water to make one litre.
3. **Solution F** is prepared by dissolving 4g of sodium hydroxide in about 800cm³ of distilled water and making up to one litre solution.
4. **Solution G** is prepared by dissolving 12.6g of oxalic acid in 400cm³ of distilled water and making the solution up to one litre.
5. **Solid P** is **sodium sulphite** and **solid R** is **oxalic acid**.