**FORM 3 CHEM PP3**

**END OF TERM 1 EXAM 2023**

**CONFIDENTIAL**

**Question one**

In addition, to the common laboratory apparatus and fittings, each candidate should be provided with:

- About 80cm3 of solution R

- About 100cm3 of solution Q

–1.06g of solid A accurately weighed

- 25ml pipette

- 50ml burette

 - 250ml volumetric flask

- 100ml plastic beaker

- Three conical flasks

- Labels

- 50ml measuring cylinder

- Metallic spatula

- source of heat

- boiling tube

- six dry test tubes

Access to methyl orange

Solid A is anhydrous sodium carbonate

**Question two**

Solid J (2g) (each student) – prepared by mixing zinc sulphate and ammonium sulphate in the ratio 1:1

* 2 M sodium hydroxide solution
* 2M ammonium hydroxide solution
* 2M lead (ii) nitrate solution
* 2 M nitric (IV) acid