***DECEMBER EXAM 2021***

***FORM FOUR***

***CHEMISTRY CONFIDENTIAL***

* 4.5g of solid A in a boiling tube(accurately weighed)
* About 100cm3 of solution B
* One burette
* One pipette
* One pipette filler
* One 250ml volumetric flask
* Two 250ml conical flasks
* 1 label
* White tile
* Clamp and stand
* Thermometer( -10 – 110oC)
* About 500ml of distilled water
* one boiling tube
* 2 filter papers
* One filter funnel
* Six dry test tubes
* One wooden splint
* One clean dry watch glass
* One test tube holder
* About 10cm3 of liquid K supplied with a dropper
* About 1g of solid C
* 10ml measuring cylinder
* About 0.5g sodium hydrogen carbonate
* Clean dry spatula

***ACCESS***

* Acidified potassium dichromate (VI) supplied with a dropper
* Source of heat
* Tripod stand and wire gauze for each burner
* Barium nitrate solution supplied with a dropper
* 2M aqueous ammonia supplied with a dropper
* 2M hydrochloric acid supplied with a dropper

***PREPARATION OF SOLUTIONS***

* Liquid K is absolute ethanol
* Solid A is oxalic acid
* Solid C is a mixture of 0.5g of Zinc Sulphate and 0.5g of Zinc Carbonate
* Acidified potassium chromate (VI) is prepared by dissolving 25g of solid potassium chromate(VI) in 200cm3 of 2M sulphuric (VI) acid and diluting with distilled water to make one litre of the solution
* Solution B is acidified potassium manganate(VII) prepared by dissolving 9.48g of potassium manganate(VII) crystals in 400cm3 of 2M sulphuric(VI) acid and diluting with distilled water to a litre.