**MOKASA I JOINT EXAMINATIONS**

**CHEMISTRY PAPER 3 CONFIDENTIAL**

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

* 60 cm3of 0.5M copper (II) sulphate labeled ***solution K***
* 2.5g of ***Solid L***
* 90cm3 of acidified potassium manganate(VII), labelled as ***Solution M***
* 60 cm3of 2M sulphuric (VI) acid, ***H2SO4***
* 2ml of ***solution X***
* 2ml of ***solution Y***
* 2ml of ***solution Z***
* About 8 cm3of ***liquid E*** in a stoppered test tube
* About 2g of ***solid Q*** in a stoppered container
* Burette
* Pipette and pipette filler
* Three conical flasks
* 10ml measuring cylinder.
* 250 ml plastic beaker
* 250 ml volumetric flask with a stopper
* 1 label
* Stop watch
* Clean glass rod/looped nichrome wire
* Clean and dry Metallic spatula
* Thermometer (-10-1100c)
* four test tubes
* test tube holder
* Filter paper
* Filter funnel
* Retort stand
* white tile
* 10ml measuring cylinder.
* 50ml measuring cylinder.

**Access to the following:**

* Distilled water
* Bunsen burner
* Acidified potassium dichromate (VI) supplied with a dropper.
* 2M Barium nitrate solution supplied with a dropper.
* 2M lead (II) nitrate supplied with a dropper
* 2M Nitric (V) acid supplied with a dropper
* Sodium hydrogen carbonate solid supplied with a spatula

**Note**

* Solid Q is Na2SO3
* Liquid E is ethanol
* Solution K is prepared by accurately weighing 125g of hydrated copper (II) sulphate and making up to 1000 cm3 of solution
* Solution M is prepared by accurately weighing 3.2g of KMnO4.then dissolving in 100ml of 2M sulphuric acid and topping up to 1000ml of the solution
* Solution X is 2M potassium nitrate
* Solution Y is made by dissolving One Spatulaful of ***blue Toss*** detergent in 100ml of ***distilled water (do not use tap water)then filter***
* Solution Z is 2M copper (II) sulphate solution