**GATUNDU SOUTH JOINT EXAM Kenya Certificate of Secondary Education**

**CHEMISTRY PAPER 3**

JULY/AUGUST 2019

CONFIDENTIAL

**REQUIREMENTS**

* Solution S – 100cm3
* solution W – 100cm3
* solution A – 120cm3
* solution B – 150cm3
* solution C – 40cm3 supplied with a dropper
* solution D – 40cm3 supplied with a dropper
* Solution E 15cm3 supplied with a dropper
* 250cm3 distilled water.
* pipette
* burette
* 250ml volumetric flask
* 3 labels
* 250ml – two beakers
* 10ml measuring cylinder
* stop watch
* 50mlov 100ml measuring cylinder
* about 0.4 g solid H (solid H hydrated iron (II) sulphate)
* boiling tube and 6 test tubes
* red and blue litmus paper
* spatula
* liquid F – 10cm3 of ethanol (cover with foil paper)
* watch glass (or clean bottle top)
* 0.1g of sodium carbonate
* conical flask

**ACCESS**

* Phenolphthalein indicator
* 2M sodium hydroxide
* 2m hydrochloric acid
* barium chloride
* source of heat
* acidified potassium dichromate

**PREPARATION**

* Solution S is prepared by dissolving 25.2 grams oxalic in 800cm3 of water and then diluting it to litre.
* Solution W, 1.99m Sodium hydroxide.
* Solution A is prepared by adding 200cm3 of fresh 20 volume hydrogen peroxide to about 600cm3 of distilled water and diluting to one litre of solution. (this solution should be prepared one day before the day of examination, stored in Stoppard container and supplied on the morning on the examination)
* solution B is 2M sulphuric (IV) acid
* Solution C is prepared by dissolving 12g of solid C in about 800cm3 of distilled water and diluting to one litre of solution. (solution C Na2S2O3)
* Solution D (KI) is prepared by dissolving 10g of solid D in about 700cm3 of distilled water and diluting to one litre solution.
* Solution E is prepared by dissolving 10gm of solid E starch in about 600cm3 of warm distilled water and diluting with warm water to one litre of solution.