

GATUNDU SOUTH JOINT EXAM
Certificate of Secondary Education

Kenya

CHEMISTRY PAPER 3
JULY/AUGUST 2019

CONFIDENTIAL

REQUIREMENTS

- ⇒ Solution S – 100cm^3
- ⇒ solution W – 100cm^3
- ⇒ solution A – 120cm^3
- ⇒ solution B – 150cm^3
- ⇒ solution C – 40cm^3 supplied with a dropper
- ⇒ solution D – 40cm^3 supplied with a dropper
- ⇒ Solution E 15cm^3 supplied with a dropper
- ⇒ 250cm^3 distilled water.
- ⇒ pipette
- ⇒ burette
- ⇒ 250ml volumetric flask
- ⇒ 3 labels
- ⇒ 250ml – two beakers
- ⇒ 10ml measuring cylinder
- ⇒ stop watch
- ⇒ 50ml or 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 – 10cm^3 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 800cm^3 of water and then diluting it to litre.
- ⇒ Solution W, 1.99m Sodium hydroxide.
- ⇒ Solution A is prepared by adding 200cm^3 of fresh 20 volume hydrogen peroxide to about 600cm^3 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 800cm^3 of distilled water and diluting to one litre of solution. (solution C $\text{Na}_2\text{S}_2\text{O}_3$)
- ⇒ Solution D (KI) is prepared by dissolving 10g of solid D in about 700cm^3 of distilled water and diluting to one litre solution.
- ⇒ Solution E is prepared by dissolving 10gm of solid E starch in about 600cm^3 of warm distilled water and diluting with warm water to one litre of solution.