**Term 2 - 2022**

**CHEMISTRY (233/3)**

**PAPER 3**

**FORM FOUR (4)**

**Time: 2**¼ **Hours**

**CONFIDENTIAL REPORT**

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**INSTRUCTIONS.**

***Apart from the normal fittings in the laboratory, each candidate will need the following chemicals and apparatus.***

1. ***500ml of distilled water supplied in a wash bottle***
2. ***50ml burette***
3. ***25ml***
4. ***a pipette filler***
5. ***2 conical flasks (250ml)***
6. ***Source of heat (means of heating)***
7. ***Stop watch/clock***
8. ***A ruler***
9. ***100ml measuring cylinder***
10. ***50ml measuring cylinder***
11. ***Complete retort stand***
12. ***12cm long magnesium ribbon labelled C***
13. ***100ml of solution A (sulphuric acid)***
14. ***80ml of solution B (Sodium hydroxide soltn.)***
15. ***100ml empty beaker***
16. ***Funnel***
17. ***Sand paper***
18. ***3g of solid E***
19. ***1g of solid F***
20. ***Means of labeling***
21. ***Six clean test tubes in a test tube rack***
22. ***3 boiling tubes in a rack***
23. ***Metallic spatula***
24. ***About 0.2g of sodium hydrogen carbonate***
25. ***Glass rod.***

***Access***

1. ***2M Ammonia solution supplied with a dropper***
2. ***2M Sodium hydroxide solution supplied with a dropper***
3. ***2M Lead (II) Nitrate supplied with a dropper***
4. ***0.2M Silver Nitrate solution supplied with a dropper***
5. ***Acidified potassium dichromate (VI) supplied with a dropper***
6. ***Acidified Potassium Manganate (VII) supplied with dropper***

***N/B***

1. ***Solution A is prepared by accurately measuring 27.5cm3 of concentrated***

***Sulphuric acid, then adding it to 700ml of distilled water then topping it to one litre.***

***Density of acid 1.84g/cm3***

1. ***Solution B is prepared by accurately measuring 20g of NaOH pellets and dissolving***

***it in 800cm3 of distilled water then topping to one litre with distilled water.***

1. ***Solid E – sodium chloride***
2. ***Solid F – maleic acid***