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**CHEMISTRY PAPER 3 NOV- 2021**

**(CONFIDENTIAL)**

Kenya Certificate of secondary Education (K.C.S.E)

**Requirements for candidates**

**In addition to the apparatus and fittings found in a Chemistry laboratory, each candidate will require the following.**

1. Exactly 4.5g of solid N
2. About 100cm3 of solution P
3. One burette 0 – 50ml
4. One pipette 25ml
5. Two conical flasks 250ml
6. Thermometer
7. 100ml measuring cylinder
8. About 1g of solid M
9. About 1g of solid Q
10. Phenolphthalein indicator
11. Universal indicator solution
12. PH Chart (1-14 range)
13. About 500ml of distilled water in a wash bottle
14. 5 dry test tubes
15. 1 Boiling tube
16. Clean Metallic spatula
17. Blue and red litmus papers
18. About 0.5g sodium hydrogen carbonate solid

**Each candidate should have access to:**

1. Source of heat
2. 2M sodium hydroxide supplied with a dropper
3. 2M ammonium hydroxide supplied with a dropper
4. 2M HCl acid supplied with a dropper
5. Lead (II) nitrate supplied with a dropper
6. Acidified potassium manganate (VII) supplied with a dropper
7. 0.5M Barium chloride supplied with a dropper

**NOTES**

1. Solid N is 4.5g of oxalic acid weighed accurately and stoppered.
2. Solid M is Ammonium aluminium sulphate
3. Solid Q is Oxalic acid.
4. Solution P is 0.4M NaOH.