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TEACHER.CO.KE SERIES 8

233/3

## CHEMISTRY

PAPER 3.

## JULY/ AUGUST

## CONFIDENTIAL

1. $\quad 180 \mathrm{~cm}^{3}$ of solution N HCl in a beaker.
2. $\quad 180 \mathrm{~cm}^{3}$ of solution M 0.2 M NaOH in a beaker.
3.. $\quad 50 \mathrm{~cm}^{3}$ of solution $\mathrm{D}, 2 \mathrm{M} \mathrm{HCl}$ in a beaker.
3. $\quad 100 \mathrm{~cm}^{3}$ of solution $\mathrm{B}, 0.1 \mathrm{M} \mathrm{Na}_{2} \mathrm{~S}_{2} 0_{3}$ in a beaker.
4. $10 \mathrm{~cm}^{3}$ of 1 M HNO 3 in a boiling tube.
5. Ethanol in a stopped container.
6. $5 \mathrm{~cm}^{3}$ of conc $\mathrm{H}_{2} \mathrm{SO}_{4}$ in a test tubewith a dropper.
7. Exact 1 g of solid X which is $\mathrm{F}_{2} \mathrm{CO}_{3}$
8. About 1 g of solid L in a dry stoppered container
9. About 1 g of solid Q in a stoppered container access to:
10. Methy orange in a dropper
11. $0.5 \mathrm{M} \mathrm{Ca}(\mathrm{OH})_{2}$ in a dropper.
12. $1 \mathrm{M} \mathrm{Pb}\left(\mathrm{NO}_{3}\right)_{2}$ in a dropper.
13. 2 Ml NaOH solution in a dropper.
14. Distilled water in a wash bottle.
15. Acidified $\mathrm{KMnO}_{4}$ in a dropper.
16. About 0.5 g of $\mathrm{Na}_{2} \mathrm{CO}_{3}$ per student.
17. Pipette $\left(25 \mathrm{~cm}^{3}\right)$
18. Burette.
19. Pipette filler.
20. 3 conical flasks. $\left(250 \mathrm{~cm}^{3}\right)$
21. Stand and clamp.
22. White tile.
23. $\quad 100 \mathrm{~cm}^{3}$ glass beaker.
24. Thermometer ( -10 to $110^{\circ} \mathrm{C}$ )
25. $\quad 10 \mathrm{~cm}^{3}$ measuring cylinder.
26. $\quad 100 \mathrm{~cm}^{3}$ measuring cylinder.
27. Stop watch/ clock.
28. Plain white paper.
29. 2 boiling tube.
30. 6 test tubes in a test tube rack.
31. A glass rod.
32. Metallic spatula.
33. source of heat.
34. solid X , Solid L and solid Q to be provided by the examining authority.

## Preparation of solutions

Solution N is prepared by dissolving 68.8 ml of concentrated Hydrochloric acid in 500 ml of distilled then top up to 1litre of solution.
2. 1 M HNO 33 is prepared by 66 ml of conc. $\mathrm{HNO}_{3}$ in 500 ml of distilled water then top up to make 1litre of solution
3. Acidified $\mathrm{KMNO}_{4}$ is prepared by dissolving 3.16 g of $\mathrm{KMnO}_{4}$ in $400 \mathrm{~cm}^{3}$ of $2 \mathrm{M} \mathrm{H}_{2} \mathrm{SO}_{4}$ then topped up to 1 litre of solution by distilled $\mathrm{H}_{2} \mathrm{O}$.
4. $2 \mathrm{M} \mathrm{H}_{2} \mathrm{SO}_{4}$ prepared by dissolving $110 \mathrm{~cm}^{3}$ of conc. $\mathrm{H}_{2} \mathrm{SO}_{4}$ in 500 ml of distilled $\mathrm{H}_{2} \mathrm{O}$ then top to 1litre of solution.

