In addition to the fittings and apparatus found in chemistry laboratory, each student will require the following.

1. About 6.2 g of solid **A in a stoppered container**.
2. About 100 cm3 of solution **B**.
3. Solid E, about 0.6gbin a stoppered container.
4. About 0.2 g sodium hydrogen carbonate solid in a stoppered container.
5. 10 cm3 dilute nitric (V)acid .
6. 10 cm3of liquid L in a stoppered container.
7. Distilled water in a wash bottle.
8. One pipette and pipette filler
9. Burette.
10. Filter funnel.
11. 6 test tubes.
12. 2 Filter papers
13. Means of labeling (2 labels).
14. 50 cm3 measuring cylinder.
15. 250ml volumetric flask.
16. Thermometer.(-10 0c-1000c)
17. Glass rod
18. 250 cm3 beaker.
19. Two conical flasks.
20. 2 boiling tubes.
21. Metallic spatula
22. A test-tube holder.
23. Bunsen burner.
24. Watch glass.

**BENCH REAGENTS/ ACCESS REAGENTS**

1. Phenolphthalein indicator – supplied with dropper
2. Distilled water in a 500ml wash bottle
3. 2M Sodium hydroxide solution with dropper.
4. 0.1M Barium nitrate solution with dropper
5. Acidified Potassium manganate (VII) solution with a dropper.
6. Acidified Potassium dichromate(VI) solution with a dropper
7. 0.1 M Potassium iodide solution with a dropper.

**NOTES**

* **Solid A** is 6.2 g **oxalic acid.**
* **Solution B is 2M sodium hydroxide solution.**
* **Solid E is 0.5 g sodium sulphite and 0.1g lead (II)carbonate.**
* **Liquid L is absolute ethanol.**