

CHEMISTRY LABORATORY

LIST OF REQUIREMENTS - FOR A CLASS OF 30 STUDENTS

CLASSES XI & XII

COMMON LABORATORY APPARATUS:

1. Kipp's Apparatus
2. Balance
3. Measuring Cylinder (1000 ml)
4. Beakers (1000 ml, 500 ml, 250 ml)
5. Reagent bottles
6. Glass trough
7. Plastic containers (for distilled water and glass containers for solutions)
8. Dropper (plastic and glass)
9. Mortar and pestle
10. Spatula
11. Filter paper
12. Litmus paper
13. Starch Iodide paper
14. Chromatography paper or Whatman's Filter Paper
15. Chromatography apparatus
16. Universal indicator

NOTE: LABORATORY REQUIREMENTS ARE SUBJECT TO CHANGE BASED ON CHANGES IN THE SYLLABUS.

ITEMS	<u>QUANTITY</u>
17. Test Tubes	As required
18. Test Tube rack	30
19. Glass tube	30
20. Delivery tube	30
21. Glass rod	30
22. Funnel	30
23. Bunsen Burner	30
24. Tripod stand	30
25. Wire gauze with asbestos lining	30
26. Porcelain basin (small)	30
27. Burette (50 ml with 0.1 ml accuracy (plastic)	30
28. Pipette (20 ml or 25 ml) (plastic)	30
29. Conical flask (250 ml)	30
30. Beakers (100 ml)	30
31. Beakers (250 ml)	30 x 2
32. Watch glass	30
33. Test tube holder	30
34. Tongs	30
35. Burette stand with clamp	30
36. Hard glass test tube	30
37. Measuring cylinder (100 ml)	30

CHEMICALS REQUIRED FOR THE LABORATORY:

	<u>QUANTITY</u>
AMMONIUM SALTS:	
1. Ammonium Chloride	- 500 g
2. Ammonium Sulphate	- 500 g
3. Ammonium Nitrate	- 500 g

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4. Ammonium Carbonate	-	500 g
5. Ammonium Oxalate	-	250 g
6. Ammonium Phosphate	-	250 g
7. Ammonium Acetate	-	250 g
8. Ammonium dichromate	-	250 g

ALUMINIUM SALTS:

1. Aluminium Bromide	-	250 g
2. Aluminium Sulphate	-	500 g
3. Aluminium Carbonate	-	500 g
4. Aluminium Nitrate	-	500 g

BARIUM SALTS:

1. Barium Chloride	-	250 g
2. Barium Nitrate	-	250 g

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QUANTITY

CALCIUM SALTS:

1. Calcium Carbonate	-	500 g
2. Calcium Nitrate	-	500 g
3. Calcium Hydroxide	-	500 g
4. Calcium Oxalate	-	500 g

COPPER SALTS:

1. Copper Carbonate	-	500 g
2. Copper Sulphate	-	500 g
3. Copper Nitrate	-	500 g

IRON SALTS:

1. Ferric Chloride	-	500 g
2. Ferrous Sulphate	-	500 g
3. Ferrous ammonium Sulphate	-	500 g
4. Ferrous sulphide sticks	-	500 g

LEAD SALTS:

1. Lead Acetate	-	250 g
2. Lead Carbonate	-	250 g
3. Lead Nitrate	-	500 g
4. Lead Dioxide	-	250 g
5. Red Lead (Trilead tetraoxide)	-	250 g

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		<u>QUANTITY</u>
MAGNESIUM SALTS:		
1. Magnesium Carbonate	-	250 g
2. Magnesium Nitrate	-	250 g
3. Magnesium Sulphate	-	500 g
4. Magnesium Nitrite	-	500 g
5. Magnesium Oxalate	-	500 g
MANGANESE SALTS:		
1. Manganese Dioxide	-	500 g
2. Manganese Chloride	-	250 g
POTASSIUM SALTS:		
1. Potassium Chromate	-	250 g
2. Potassium Dichromate	-	500 g
3. Potassium Chloride	-	500 g
4. Potassium Ferrocyanide	-	250 g
5. Potassium Ferricyanide	-	250 g
6. Potassium Hydroxide	-	250 g
7. Potassium Iodide	-	250 g
8. Potassium Permanganate	-	250 g
9. Potassium Thiocyanate	-	250 g
10. Potassium hydrogen sulphate	-	250 g

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QUANTITY

SODIUM SALTS:

1. Sodium Acetate	-	250 g
2. Sodium Bicarbonate	-	250 g
3. Sodium Carbonate	-	500 g
4. Sodium Bisulphite	-	250 g
5. Sodium Nitrate	-	250 g
6. Sodium Nitrite	-	250 g
7. Sodium Thiosulphate	-	500 g
8. Sodium Hydrogen Phosphate	-	250 g
9. Sodium Hydroxide (pellets)	-	500 g

ZINC SALTS:

1. Zinc Acetate	-	500 g
2. Zinc Carbonate	-	500 g
3. Zinc Nitrate	-	250 g
4. Zinc Sulphate	-	250 g

METALS REQUIRED:

Copper Turnings, Magnesium strips, zinc electrode,
Copper electrode

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		<u>QUANTITY</u>
OTHER CHEMICALS:		
1. Borax	-	250 g
2. Nickel Nitrate	-	250 g
3. Iodine crystals	-	100 g
4. Dimethyl Glyoxime	-	100 g
5. 2, 4 Dinitrophenyl Hydrazine	-	100 g
6. Phenylhydrazine	-	100 g
7. Glucose	-	500 g
8. Iodine	-	100 g
9. Oxalic Acid	-	500 g
10. Pyrogallol	-	250 g
11. Phenolphthalein	-	50 ml
12. Resorcinol	-	100 g
13. Starch	-	500 g
14. Strontium Nitrate	-	250 g
15. Alpha - Naphthol	-	100 g
16. Beta - Naphthol	-	100 g
17. Ammonium Ceric Nitrate	-	100 g
18. Silver Nitrate	-	100 g
19. Benzoic Acid	-	250 g
20. Sodium Nitroprusside	-	100 g

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21. Fehling's Solution A and B ml	-	250 ml + 250
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QUANTITY

22. Formaldehyde	-	500 ml
23. Ammonium Sulphide	-	100 g
24. Glycerol	-	500 ml
25. Chlorine Water	-	500 ml
26. Bromine Water	-	500 ml
27. Ethanol	-	500 ml
28. Silver Nitrate	-	100 g
29. Aniline	-	500 g
30. Acetone	-	500 g
31. Litmus Blue solution	-	500 g
32. Methyl Orange	-	50 g
33. Sodium Hypochlorite	-	500 ml
34. Schiff's Reagent	-	500 ml

ACIDS:

1. Concentrated Sulphuric Acid	-	2.5 litres
2. Concentrated Hydrochloric Acid	-	2.5 litres
3. Concentrated Nitric Acid	-	2.5 litres
4. Glacial Acetic Acid	-	2.5 litres

BASE:

Liquor Ammonium Hydroxide	-	2.5 litres
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TEST FOR PROTEINS AND CARBOHYDRATES

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1. Benedict's Solution
2. Sudan III

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