

Lab Requirements for MCH-002

S.NO.	APPARATUS
1.	Burette (50 cm ³)
2.	Graduated pipette (5 cm ³)
3.	Pipette (25 cm ³ , 10 cm ³)
4.	Volumetric flasks (500 cm ³ , 250 cm ³ , 100 cm ³ , 50 cm ³)
5.	Conical flask (100 cm ³)
6.	Beakers (250 cm ³ , 100 cm ³ , 50 cm ³)
7.	Weighing bottle
8.	Funnel
9.	Separatory funnels (100 cm ³)
10.	Wash bottle
11.	pH-meter
12.	Electronic chemical balance
13.	Eye covers (glasses)
14.	Glass column(Simple)/(Fitted with porous disc) (25 cm × 1 cm)
15.	Weighing bottle
16.	Sintered glass funnels
17.	Desiccator
18.	Glass wool
19.	Temperature controlled oven
20.	Glass column (simple) (50 cm × 1 cm)
21.	Glass stoppered pyrex bottle (250 cm ³)
22.	Electric hot plate/Asbestos-plate
23.	Asbestos Chromatographic glass chamber
24.	Measuring cylinder
25.	Micro pipette
26.	Whatman no. 1 filter paper sheet
27.	Test tubes
28.	Sprayer for the reagent
29.	Development chamber
30.	Kieselgel G prepared plate or
31.	Glass/metal/plastic plate
32.	Micropipette or micro capillaries
33.	Spraying bottle

List of Chemicals

Oxalic acid	Nickel chloride
Sodium hydroxide	Cupric chloride
Hydrochloric acid	Cobalt chloride
Ferric chloride (anhydrous)	Acetone
Nickel chloride ($\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$)	Ammonium sulphide
Tri-n-butyl phosphate (TBP)	Dimethyl glyoxime
Toluene/Kerosene ($160^\circ\text{-}200^\circ\text{C}$)	Ethanol
Phenolphthalein	Liquor ammonia
Methyl orange	n-Butanol
Varian Blue B	Acetic acid
Murexide	n-Propanol
Sodium chloride	Glycine
Nitric acid	L-Proline
Sodium chloride	L-Leucine
Sodium nitrate	DL-Alanine
Potassium chromate	Any other amino acid
Phenolphthalein	Fructose, Glucose, Maltose, Lactose
Methyl orange	Acetone
Disodium salt of EDTA (Na_2EDTA)	n-butanol and ethanol
Dowex 50/Amberlite IR-120, (50-100 mesh / 100-200 mesh)	Trichloroethanoic acid
Dowex 1/Amberlite IR-400, (50-100 mesh / 100-200 mesh)	1,3-Dioxynapthalene
Deionized / Double distilled water	Silica gel G (TLC grade)
Whatman 42 filter paper disc	Calcium carbonate
Phenolphthalein	Sodium sulphate, anhydrous
	Benzene
Methyl orange	Petroleum ether ($40\text{-}60^\circ\text{C}$)
	Ferric ammonium sulphate
Conc. ammonia	Aluminum ammonium sulphate
Ferric chloride (anhydrous)	Zinc sulphate
Nickel chloride ($\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$)	Disodium salt of EDTA
	Eriochrome black T indicator
Manganese chloride	Whatman cellulose powder (alternatively paper cutting waste if available, may be used)