

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching – learning, viz., classrooms, laboratories, computing equipment, etc.

#### BSc Chemistry Lab-1



BSc chemistry lab reinforces the material the students have learned in class and it gives the students a chance to apply their knowledge. The students will learn some important experimental techniques that are necessary for them to become an effective chemist. Practical chemistry is designed to complement the theoretical studies and constitutes most of the continuously assessed parts of their degree.

A wide variety of experiments are carried out, from the synthesis of target compounds to physical chemistry and inorganic chemistry in this laboratory. The following equipments in the laboratory are important in carrying out the experiments. All physical chemistry, Inorganic and organic chemistry practical for BSc main students are carried out in this laboratory.



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**Criterion IV: Infrastructure and Learning Resources** 

Lab Interior Photos







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**Criterion IV: Infrastructure and Learning Resources** 

Balance Room 1



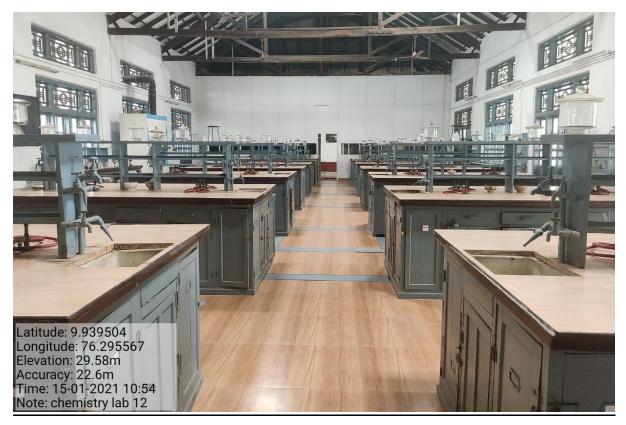
Lab Working Tables





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Lab Working Tables



Fume Hood



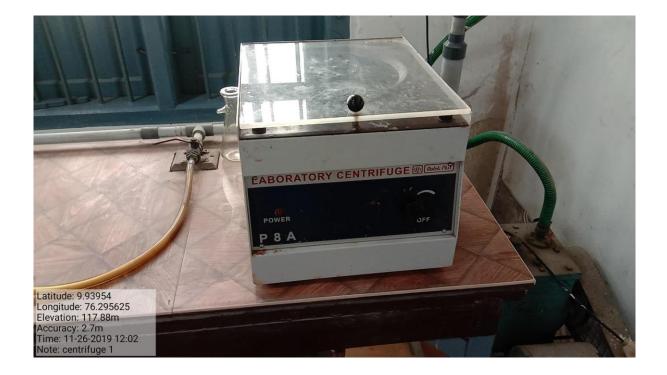
Fume hoods are used to do experiments and protect the students by Containing vapours, dusts, gases, and fumes generated within the **hood**, and removing them as air flows into the **hood** and then out via the laboratory exhaust system.

Use:- exhaust



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<u>Centrifuge</u>



Centrifuges work by separating out two materials with different densities. They are best used to separate materials that have similar densities; or when insoluble particulates are present in a dissolved solution.

Use:- In inorganic chemistry experiments



# Water Distillation Unit



Water Distillation Unit is used to purify water using distillation process, which is related to first boiling impure water after that collecting condensed water in a separate container. This distilled water is used in the lab for doing the experiments.

Use:- in distillation of water.

## Melting Point Apparatus



Melting Point Apparatus is used to measure the melting point of compounds separated by qualitative analysis

Use:- In organic chemistry experiments.

## **Digital weighing machine**





This apparatus is used to weigh the reagents and materials accurately for doing the experiments. It is also used to accurately measure the weight of products of reactions carried out in the laboratory and to calculate the yield of the reactions.

Use:- in weighing Chemicals.

#### **Digital potentiometer**



The measuring instrument called a **potentiometer** is essentially a voltage divider used for measuring electric potential (voltage) This apparatus is used to conduct physical chemistry experiments. It is used to measure the EMF of solutions and in potentiometric titrations and measuring the solubility of substances .

Use:- In Physical Chemistry experiments.



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## **Digital Conductivity meter**



A digital conductivity meter accurately measures the amount of electrical current or conductance in a solution. Conductivity meter is used in conductometric titrations in physical chemistry experiments.

Use:- In Physical Chemistry experiments.



IR Lamp



In science the I.R lamp is mainly used for heating. It is used to dry the compound prepared during organic and inorganic synthesis experiments. Use:- in drying the compounds.

#### Pipette apparatus





A pipette is a laboratory instrument used to measure out or transfer small quantities of liquid, in volumes of millilitres (mL). It is used in a wide variety of experiments in chemistry. Use:- In inorganic chemistry experiments.

### **Bunsen burner**



A Bunsen burner, named after Robert Bunsen, is a kind of gas burner used as laboratory equipment; it produces a single open gas flame, and is used for heating, sterilization, and combustion. The gas can be natural gas (which is mainly methane) or a liquefied petroleum gas, such as propane, butane, or a mixture.

Use:- In inorganic chemistry experiments.



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Preparation Room

