TDC Part II
Paper I, Group B
Inorganic Chemistry

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TOPIC:- INTRODUCTION TO LAB TECHNIQUES

INTRODUCTION

Inorganic chemistry is the branch of chemistry that deals with the properties and behavior of inorganic compounds (non-living compounds). The experiments related to science which include chemistry, biology, physics etc. are carried out in a proper place provided with the facilities for performing the experiments is known as laboratory or colloqially lab. We have studied in lower classes that a chemistry lab consists of different types of chemicals, apparatus, equipment etc. Now moving to higher classes we must have a complete knowledge of laboratory that one have to keep in mind.

The present unit deals with the introduction of lab which includes a general knowledge of how to maintain a laboratory notebook? What are the common apparatus used in the laboratory? How to use analytical balance? How to make standard solution? How many types of standard solutions are there? What are lab reagents? What are the safety

measures taken in the laboratory for performing the experiments? The unit is quite interesting provided with suitable figures in order to clear the topic properly.

It is necessary for a science student to have a complete knowledge of laboratories because in laboratory we perform experiments, observe change and obtain result. The whole process can be easily kept in mind as we perform the experiment in spite of reading the same experiment from a book. Working in laboratory makes the topic quite interesting. Now for having a complete knowledge of a laboratory, we move forward.

OBJECTIVES

After reading this unit you will be able to:

- Maintain a laboratory notebook.
- Have knowledge of commonly used apparatus in the laboratory.
- Know the method of using a pipette, burette,

volumetric flask and analytical balance.

- Explain different terms like precipitation, digestion, filtration and ignition, drying, cooling etc.
- Describe the process of titration.
- Classify the titration.
- Classify the indicator.
- Determine the strength of given sodium hydroxide (NaOH) solution.
- Have knowledge of lab reagents.
- Know the safety measures taken in the laboratory.
