

**PG & RESEARCH DEPARTMENT OF CHEMISTRY,
ISLMIAH COLLEGE (AUTONOMOUS), VANIYAMBADI
MANUAL OF STANDARD OPERATING PROCEDURE**

B.Sc., CHEMISTRY

Core Practical - I Inorganic Qualitative analysis I and complex Preparation

Course Code: U8CHPR11

- Chemical should be handled in small quantities as the conventional scheme for semi micro analysis is followed.
- Avoid direct handling of chemicals with hands.
- Caution should be followed in handling the inorganic salts and concentrated acids from direct contact with eyes and mouth.
- Caution should be followed in the preparation of inorganic compounds. The prepared compounds must be disposed properly.
- Turn off the burner to save the LPG gas in the laboratory when there is no necessity for heating.

B.Sc., CHEMISTRY

Core Practical - II Inorganic Qualitative analysis II

Course Code: U8CHPR21

- Chemical should be handled in small quantities as the conventional scheme for semi micro analysis is followed.
- Avoid direct handling of chemicals with hands.
- Caution should be followed in handling the inorganic salts and concentrated acids from direct contact with eyes and mouth.
- Caution should be followed in the preparation of inorganic compounds. The prepared compounds must be disposed properly.
- Gibb's apparatus should be closed properly to avoid the leakage of gas. Cover your nose properly.
- Turn off the burner to save the LPG gas in the laboratory when there is no necessity for heating.

B.Sc., PHYSICS / BIOCHEMISTRY
Allied Chemistry Practical I Volumetric Analysis I
Course Code: U8PYAP11 / U8BIAP11

- Caution should followed in handling glass wares and chemical solutions while carrying out volumetric estimation
- Avoid direct contact of chemicals with mouth, eyes, etc.
- Students must be careful while pipetting out the solutions
- Avoid spillage of chemicals while preparing the standard solutions.
- Indicators should be handled carefully. Avoid use of reagents in excess quantities.
- Follow the procedure given in the lab manual to minimize the experimental error.

B.Sc., PHYSICS / BIOCHEMISTRY
Allied Chemistry Practical II
Course Code: U8PYAP21 / U8BIAP21

- Avoid the contact of water with sodium metal as the metal catches fire in wet conditions.
- Handle glass wares carefully while heating / boiling the solutions.
- Avoid direct contact of organic chemicals with your eyes / mouth.
- In case of any irritation in your hands / face wash with plenty of water repeatedly.
- Dispose the organic compounds and products of chemical testing properly one the analysis is over.
- Turn off the burner to save the LPG gas in the laboratory when there is no necessity for heating.

B.Sc., CHEMISTRY
Core Practical - III Volumetric Estimation I
Course Code: U8CHPR31

- Caution should followed in handling glass wares and chemical solutions while carrying out volumetric estimation
- Avoid direct contact of chemicals with mouth, eyes, etc.
- Students must be careful while pipetting out the solutions.
- Avoid spillage of chemicals while weighing and preparing the standard solutions.
- Indicators should be handled carefully. Avoid use of reagents in excess quantities.
- Follow the procedure given in the lab manual to minimize the experimental error.

B.Sc., CHEMISTRY
Core Practical - IV Volumetric Estimation I
Course Code: U8CHPR31

- Caution should followed in handling glass wares and chemical solutions while carrying out volumetric estimation.
- Avoid direct contact of chemicals with mouth, eyes, etc.
- Students must be careful while pipetting out the solutions.
- Avoid spillage of chemicals while weighing and preparing the standard solutions.
- Indicators should be handled carefully. Avoid use of reagents in excess quantities.
- Follow the procedure given in the lab manual to minimize the experimental error.

B.Sc., CHEMISTRY
Core Practical - V Gravimetric Estimation I
Course Code: U5CHPR51

- Avoid spillage of chemicals while preparing the test solutions.
- The desiccators should be maintained properly with anhydrous calcium chloride.
- Desiccator's lids must be coated with vaselline to avoid contact moisture.
- Caution should be followed in cleaning, drying and weighing of sintered and silica crucibles.
- Filtration of the precipitate with the suction pump should be done carefully. Avoid over flow of the filtrate in to the suction pump.
- Hot air ovens must be maintained at the correct temperature. Avoid the frequent opening of the oven to check the drying of the precipitate.
- Exercise caution in handling chemicals and avoid use of excess reagents.

B.Sc., CHEMISTRY
Core Practical - VI Physical Chemistry Practical I
Course Code: U5CHPR52

- Avoid spillage of chemicals while preparing the test solutions.
- Stop watches should be handled gently.
- Handle glass wares carefully.
- Avoid direct contact with electrical points while handling electrical instruments.
- Be cautious while doing experiments with corrosive chemicals.

B.Sc., CHEMISTRY
Core Practical - VII Organic Chemistry Practical I
Course Code: U5CHSB5P5

- Avoid the contact of water with sodium metal as the metal catches fire in wet conditions.
- Handle glass wares carefully while heating / boiling the solutions.
- Avoid direct contact of organic chemicals with your eyes / mouth.
- In case of any irritation in your hands / face wash with plenty of water repeatedly.

- Dispose the organic compounds and products of chemical testing properly once the analysis is over.

B.Sc., CHEMISTRY
Core Practical - VIII Gravimetric Estimation II
Course Code: U5CHPR61

- Avoid spillage of chemicals while preparing the test solutions.
- The desiccators should be maintained properly with anhydrous calcium chloride.
- Desiccator's lids must be coated with vaseline to avoid contact moisture.
- Caution should be followed in cleaning, drying and weighing of sintered and silica crucibles.
- Filtration of the precipitate with the suction pump should be done carefully. Avoid overflow of the filtrate into the suction pump.
- Hot air ovens must be maintained at the correct temperature. Avoid the frequent opening of the oven to check the drying of the precipitate.
- Exercise caution in handling chemicals and avoid use of excess reagents.

B.Sc., CHEMISTRY
Core Practical - IX Physical Chemistry Practical II
Course Code: U5CHPR62

- Avoid spillage of chemicals while preparing the test solutions.
- Stop watches should be handled gently.
- Handle glass wares carefully.
- Avoid direct contact with electrical points while handling electrical instruments
- Be cautious while doing experiments with corrosive chemicals

B.Sc., CHEMISTRY
Core Practical - X Organic Chemistry Practical II
Course Code: U5CHSB5P5

- Avoid the contact of water with sodium metal as the metal catches fire in wet conditions.
- Handle glass wares carefully while heating / boiling the solutions.
- Avoid direct contact of organic chemicals with your eyes / mouth.
- In case of any irritation in your hands / face wash with plenty of water repeatedly.
- Dispose the organic compounds and products of chemical testing properly once the analysis is over.
- Flow of water must be controlled while carrying out reflux. Add pieces of shock absorbers to avoid pumping of solutions.
- Filtration of the precipitate with the suction pump should be done carefully. Avoid overflow of the filtrate into the suction pump.