

TELANGANA STATE BOARD OF INTERMEDIATE EDUCATION, HYDERABAD

ACADEMIC YEAR 2020-2021

70% CONTENT IN VIEW OF COVID-19 PANDEMIC

INTERMEDIATE 2nd YEAR PRACTICALS CHEMISTRY SYLLABUS

I. Qualitative analysis

Determination of one cation and one anion in a given salt.

Cation : Pb^{2+} , Cu^{2+} , Al^{3+} , Fe^{2+} , Mn^{2+} , Zn^{2+} , Cu^{2+} , Ni^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , Mg^{2+} , NH_4^+ Anions: $(\text{CO}_3)^{2-}$, $(\text{SO}_4)^{2-}$, Cl^- , Br^- , CH_3COO^- , NO_3^- - (Note: Insoluble salts excluded)

II. Volumetric analysis (Titrimetry)

II.a. Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard Ferrous Ammonium Sulphate solution

II.b. Determination of concentration/ molarity of KMnO_4 solution by titrating it against a standard Oxalic acid solution

II.c. Determination of concentration/ molarity of HCl solution by titrating it against a standard Sodium Carbonate solution

II.d. Determination of concentration/ molarity of NaOH solution by titrating it against a standard Oxalic acid solution

III.a. Tests for the functional groups present in organic compounds:

Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.

III.d Characteristic tests of carbohydrates, and proteins in pure samples and their detection in given food stuffs.

PROJECT

Scientific investigations involving laboratory testing and collecting information from other sources

A few suggested Projects.

- Study of the presence of oxalate ions in guava fruit at different stages of ripening.
- Study of quantity of casein present in different samples of milk.
- Preparation of soybean milk and its comparison with the natural milk with respect to curd formation, effect of temperature, etc.
- Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature, concentration, time, etc.)
- Study of digestion of starch by salivary amylase and effect of pH and temperature on it.
- Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato juice, carrot juice, etc.
- Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).
- Study of common food adulterants in fat, oil, butter, sugar, turmeric powder, chilli powder and pepper.