PBO 3001: BIOPHYSICS. INSTRUMENTATION AND BIOCHEMISTRY

Major practicals

1. Standard curve of Glucose (Reducing sugar) by Nelson-Somogyi/Di-Nitro Salicylic Acid (DNSA) method.
2. Standard curve of Starch by Anthrone/Iodine reagent.
3. Standard curve of Proteins by Biuret/Lowry's method.
4. Standard curve of Animo acids by Ninhydrin method.
5. Extraction and estimation of reducing sugar by Nelson-Somogyi/Di-Nitro Salicylic Acid (DNSA) method.
6. Extraction and estimation of Starch by Anthrone/Iodine reagent.
7. Estimation of protein by Micro-Kjeldahl's/Biuret/Lowry's method.
8. Extraction and estimation of amino acids by Ninhydrin method.
9. Determination of Amylase/Peroxidase activity.

Minor practicals

10. Separation and identification of Sugars/Amino acids/Plant pigments by Paper/Thin layer Chromatography.
11. Identification of different sugars (spot tests).
12. Estimation of free fatty acids by titration.
13. Extraction of seed proteins depending upon the solubility.
14. Determination of Isoelectric point of Casein.

General practicals

15. pH determination of plant tissues.
16. Preparation of Buffers and buffering action.

Spot-'A'

17. Principle and working of:
    1. Colorimeter/Spectrophotometer.
    2. Chromatography technique.
    3. Electrophoresis.
    4. Centrifugation.
    5. Microscopy
    6. pH meter