PHAR 221 Lab Biochemistry Practical

Proposed topics for practical

1. Preparation of standard buffers (citrate, phosphate and carbonate) and measurement of pH.
2. Titration curve for amino acids.
3. Separation of amino acids by two dimensional paper chromatography and gel electrophoresis.
4. Separation of lipids by TLC.
5. Separation of serum proteins by electrophoresis on cellulose acetate.
6. Quantitative estimation of amino acids.
7. Quantitative estimation of proteins.
8. Determination of glucose by means of the enzyme glucose oxidase.
9. Enzymatic hydrolysis of glycogen by alpha- and beta- amylases.
10. Isolation and determination of RNA and DNA.
11. Effect of temperature on the activity of alpha-amylase.
12. Estimation of SGOT, SGPT, Alkaline phosphotase and Bilirubin in the serum.

Books and other resources recommended

1. Conn, E.E. and Stump, P.K. Outlines of Biochemistry. John Wiley & Sons, New York.
2. Jayaraman, J. Laboratory Manual in Biochemistry. Wiley Eastern Ltd., New Delhi
3. Lehninger, A.L. Biochemistry, Worth Publisher, Inc.
4. Plumer, D.T. An Introduction to Practical Biochemistry. Tata McGraw Hill, New Delhi.
5. Harper's Biochemistry, Lange Publishing Group.
6. Harrow, B and Mazur, A. Textbook of Biochemistry. W.B. Saunders Co., Philadelphia.
7. Lehninger, A.L. Principles of Biochemistry. CBS Publishers.
8. Martin, D.W., Mayos, P.A. and Redwell, V.M. Harper's Biochemistry. Lange Medical Publications.
9. Mussay, R.K., Granner, D.K., Mayos, P.A. and Redwell, V.M. Harper's Biochemistry. Prentice-Hall International.
10. Ramarao Textbook of Biochemistry UBSPD.
11. Stryer, L. Biochemistry. W.H. Freeman & Co., San Fransisco.