

CORE PRACTICAL II

ANALYTICAL TECHNIQUES AND BIOCHEMICAL PREPARATIONS

Sem	Sub. Code	Category	Lecture		Theory		Practical		Credit
			Hrs/ week	Hrs/ sem.	Hrs/ week	Hrs/ sem.	Hrs/ week	Hrs/ sem	
IV	21CBC41	Core Practical	-	-	-	-	3	45	3

I. BIOCHEMICAL TECHNIQUES

1. Separation and Identification of amino acids and sugars by Paper Chromatography.
2. Separation and Identification of amino acids and sugars by Thin Layer Chromatography.
3. Separation of Plant pigments by Column Chromatography.
4. Demonstration of separation of lipids by Thin Layer Chromatography.
5. Demonstration of Polyacrylamide Gel Electrophoresis [PAGE] of proteins.

II. COLORIMETRIC ESTIMATIONS

1. Estimation of Protein by Biuret method.
2. Estimation of Amino acid by Nindyrin method.
3. Estimation of Inorganic Phosphorus by Fiske and Subbarow method.

III. BIOCHEMICAL PREPARATIONS

1. Preparation of solutions- Normal, Molar, Molal solutions.
2. Preparation of buffers-Tris, Citrate, Acetate, Bicarbonate and Phosphate Buffers.
3. Preparation of Starch from Potato.
4. Preparation of Lactalbumin and Casein from milk.
5. Preparation of Albumin from egg.

TEXT BOOKS:

S.NO	AUTHOR	TITLE	PUBLISHER	YEAR OF PUBLICATION
1	A. Sadasivam and A.Manickam	Biochemical techniques	New age international publishers,	2 nd edition (2003).
2	J. Jayaraman	Laboratory manual in biochemistry	Wiley Eastern	1981

3	S. K. Sawhney	Introductory Practical Biochemistry	Alpha Science	2 nd edition 2005
4	Ramniksood	Medical laboratory Technology	Jaypee	6 th edition(2006)

REFERENCE BOOKS:

S.NO	AUTHOR	TITLE	PUBLISHER	YEAR OF PUBLICATION
1.	H. Varley	Practical Clinical Biochemistry	CBS Publishers	4 th edition(1988)
2	ShivarajaShankara	Laboratory Manual for Practical biochemistry	Jaypee Brothers Medical Publishers	2 nd edition 2013
3	PremPrakash Gupta and Neelu Gupta	Essentials of Practical biochemistry	Jaypee Brothers Medical Publishers	1 st edition 2016
4	Rashmi A. Joshi	A Textbook of Practical Biochemistry	B Jain Publishers Pvt Ltd	2002
5	David T. Plummer	An introduction to Practical Biochemistry	Tata McGraw-Hill Publishing Company Limited	3 rd edition(1988)
6	Raymond P.W. Scott	Techniques and Practice of Chromatography	CRC Press	1 st edition 1995

WEB SOURCES:

- <https://microbenotes.com/chromatography-principle-types-and-applications/>
- <https://ruo.mbl.co.jp/bio/e/support/method/sds-page.html>
- www.hindawi.com/journals/ijac/2019/3021980/
- www.toppr.com/guides/chemistry/equilibrium/buffer-solutions/

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