

As per CBME Guidelines | Competency Based Undergraduate Curriculum for the Indian Medical Graduate

Practical Biochemistry

enters the 37th year of its life this year after five successful editions and several more reprints. Continued popularity of the book is the reason for bringing out the present edition which features thoroughly updated text and figures. Some new material and illustrations have been added while revising and updating this edition. All the competencies listed under the CBME Guidelines | Competency Based Undergraduate Curriculum for the Indian Medical Graduate prescribed by the National Medical Commission (erstwhile Medical Council of India) have been covered.

The book continues to retain its essence of giving a complete coverage of practical biochemistry syllabus for 1st MBBS in India, attempting to omit nothing essential and to include nothing superfluous.

Each chapter begins with a brief theoretical background pertinent to the experiments that follow. The experiments are described in terms of purpose, reagents, procedure, principle, and practical or clinical applications. Interpretation of the findings has been discussed where relevant.

RC Gupta MD (Biochemistry)

is Professor Emeritus, Department of Biochemistry, National Institute of Medical Sciences, Jaipur, Rajasthan.

S Bhargava MSc (Med), MD (Biochemistry)

was Professor and Chairperson, Department of Biochemistry, JV College of Medical Sciences, Srinagar, J&K.

Sixth Edition

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Practical Biochemistry Gupta | Bhargava



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CBSPD
CBS Publishers & Distributors Pvt Ltd
4819/XI, Prahlad Street, 24 Ansari Road, Daryaganj, New Delhi 110 002, India
E-mail: delhi@cbspd.com, cbspubs@airtelmail.in; Website: www.cbspd.com
New Delhi | Bengaluru | Chennai | Kochi | Kolkata | Lucknow | Mumbai
Hyderabad | Jharkhand | Nagpur | Patna | Pune | Uttarakhand



ISBN: 978-93-5466-022-1



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RC Gupta

MD (Biochem)

Professor Emeritus

Department of Biochemistry

National Institute of Medical Sciences

Jaipur, Rajasthan

S Bhargava

MSc (Med), MD (Biochem)

Ex-Professor and Chairperson

Department of Biochemistry

JV College of Medical Sciences

Srinagar, J&K



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New Delhi • Bengaluru • Chennai • Kochi • Kolkata • Lucknow • Mumbai
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ISBN: 978-93-5466-022-1

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Sixth Edition: 2022

Fifth Edition: 2013

Reprint: 2013, 2014, 2015, 2016, 2019

Fourth Edition: 2006

Third Edition: 2004

Second Edition: 1992

First Edition: 1985

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Published by Satish Kumar Jain and produced by Varun Jain for

CBS Publishers & Distributors Pvt Ltd

4819/XI Prahlad Street, 24 Ansari Road, Daryaganj, New Delhi 110 002, India

Ph: 011-23289259, 23266861, 23266867

Website: www.cbspd.com

Fax: 011-23243014

e-mail: delhi@cbspd.com; cbspdubs@airtelmail.in

Corporate Office: 204 FIE, Industrial Area, Patparganj, Delhi 110 092

Ph: 011-4934 4934

Fax: 011-4934 4935

e-mail: publishing@cbspd.com; publicity@cbspd.com

Branches

- **Bengaluru:** Seema House 2975, 17th Cross, K.R. Road, Banasankari 2nd Stage, Bengaluru 560 070, Karnataka, India
Ph: +91-80-26771678/79 Fax: +91-80-26771680 e-mail: bangalore@cbspd.com
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Ph: +91-44-26680620, 26681266 Fax: +91-44-42032115 e-mail: chennai@cbspd.com
- **Kochi:** 42/1325, 1326, Power House Road, Opp KSEB, Power House, Ernakulam 682 018, Kerala, India
Ph: +91-484-4059061-65 Fax: +91-484-4059065 e-mail: kochi@cbspd.com
- **Kolkata:** 147, Hind Ceramics Compound, 1st Floor, Nilgunj Road, Belghoria, Kolkata-700056, West Bengal, India
Ph: 033-25633055, 033-25633056 e-mail: kolkata@cbspd.com
- **Lucknow:** Basement, Khushnuma Complex, 7-Meerabai Marg (Behind Jawahar Bhawan) Lucknow 226001, India
Ph: 0522-4000032 e-mail: tiwari.lucknow@cbspd.com
- **Mumbai:** PWD Shed, Gala no. 25/26, Ramchandra Bhatt Marg, Next to JJ Hospital Gate no. 2, Opp. Union Bank of India, Noorbaug Mumbai-400009, Maharashtra, India
Ph: 022-66661880/89 e-mail: mumbai@cbspd.com

Representatives

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- **Patna** 0-9334159340 • **Pune** 0-9623451994 • **Uttarakhand** 0-9716462459

Printed at Neekunj Print Process, Haryana, India

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Science and technology are constantly changing fields. New research and experience broaden the scope of information and knowledge. The authors have tried their best in giving information available to them while preparing the material for this book. Although, all efforts have been made to ensure optimum accuracy of the material, yet it is quite possible some errors might have been left uncorrected. The publisher, the printer and the authors will not be held responsible for any inadvertent errors, omissions or inaccuracies.

Preface to the Sixth Edition

This book was first published in 1985. After a number of editions and reprints, the book is entering the 37th year of its life. Much has changed during these years. The Medical Council of India Graduate Medical Education Regulations were revised in 1997 and then again in 2019. Medical Council of India has been replaced by National Medical Commission. The 2019 regulations have introduced several innovations including the concept of competency based medical education. The new curriculum lists a set of competencies that the undergraduate medical student has to acquire. Accordingly, the present edition lists the competencies in practical biochemistry that have to be learnt by the student. Some new material has been incorporated as well.

A sad development since the publication of the last edition is the passing away of one of the co-authors, Dr Sarla Bhargava. However, her name is being retained as a co-author as a mark of respect to her.

As before, criticism and suggestions will be gratefully accepted.

RC Gupta

Preface to the First Edition


Authors of every new book must answer the inevitable question as to what was the need for a new book when so many are already available. For any author, this is a difficult question to answer. The urge for self-expression is perhaps the most abiding reason. Dissatisfaction with the available books, as to the content and style, is probably another. The author may also wish to reach a wider audience rather than confine his teaching to a small body of students in the classroom. All these reasons were operative, in varying degrees, in our case too. But the main reason was the severe paucity of books on *Practical Biochemistry* catering to the needs of the Indian medical students. Complete coverage of *Practical Biochemistry* syllabi of Indian universities has been our main objective. We have attempted to omit nothing important, and to include nothing superfluous.

The order of the chapters is that generally followed in the classroom. Each chapter begins with a brief theoretical background pertinent to the experiments that follow. The experiments are described in terms of purpose, reagents, procedure, principle, precautions, practical application, etc. Interpretation of the findings has been discussed where relevant.

Colorimetric determination of various constituents of biological fluids forms an important part of the diagnostic services rendered by a biochemistry laboratory. As the student will be using these services frequently during his clinical career, the principles, techniques and interpretation of results of the colorimetric determinations have been discussed in considerable detail. Some newer methods, e.g. o-toluidine method for glucose and diacetylmonoxime method for urea, have also been described.

We hope that the book will meet the requirements of undergraduate medical students, and will also be found useful by teachers in biochemistry. In spite of our best efforts, some mistakes might have crept in. We will gratefully accept all the criticism and suggestions.

RC Gupta
S Bhargava



Contents

<i>Preface to the Sixth Edition</i>	<i>v</i>
<i>Preface to the First Edition</i>	<i>vii</i>
<i>Index of Competencies</i>	<i>xi</i>
1. Basic Laboratory Practice	1
2. Physical Chemistry	9
3. Carbohydrates	18
4. Lipids	34
5. Proteins	40
6. Polarimetry	54
7. Blood	56
8. Foodstuffs	67
9. Saliva	80
10. Gastric Juice	83
11. Pancreatic Juice	96
12. Bile	98
13. Normal Urine	102
14. Pathological Urine	110
15. Estimation of Glucose in Urine	117
16. Estimation of Total Chlorides in Urine	121
17. Identification of an Unknown Substance of Physiological Importance	122
18. Colorimetry	125

x Practical Biochemistry

19.	Estimation of Blood Glucose	136
20.	Estimation of Serum Cholesterol (Total)	144
21.	Estimation of Serum Uric Acid	149
22.	Estimation of Serum Calcium	152
23.	Estimation of Serum Phosphorus (Inorganic)	155
24.	Estimation of Serum Urea	159
25.	Estimation of Urine Urea	165
26.	Estimation of Blood Non-protein Nitrogen	168
27.	Estimation of Serum Creatinine	171
28.	Estimation of Serum Bilirubin	174
29.	Estimation of Serum Proteins (Total)	179
30.	Estimation of Serum Albumin and Globulin	182
31.	Estimation of Serum Amylase	185
32.	Estimation of Serum Lactate Dehydrogenase	188
33.	Estimation of Serum Glutamate Oxaloacetate Transaminase and Glutamate Pyruvate Transaminase	191
34.	Estimation of Serum Phosphatases	195
35.	Biochemical Examination of Cerebrospinal Fluid	199
36.	Special Techniques	204
37.	Kidney Function Tests	220
38.	Liver Function Tests	228
39.	Objective Structured Practical Examination	233
	<i>Appendices</i>	<i>247</i>
	<i>Index</i>	<i>251</i>

Index of Competencies

<i>Code</i>	<i>Competency</i>	<i>Chapter</i>	<i>Page number</i>
BI 11.1	Describe commonly used laboratory apparatus and equipment, good safe laboratory practice and waste disposal	1	1
BI 11.16	Observe use of commonly used equipment/ techniques in biochemistry laboratory	1	1
BI 11.2	Describe the preparation of buffers and estimation of pH	2	9
BI 11.3	Describe the chemical components of normal urine	13	102
BI 11.4	Perform urine analysis to estimate and determine normal and abnormal constituents	13	102
BI 11.4	Perform urine analysis to estimate and determine normal and abnormal constituents	14	110
BI 11.20	Identify abnormal constituents in urine, interpret the findings and correlate these with pathological states	14	110
BI 11.6	Describe the principles of colorimetry	18	125
BI 11.18	Discuss the principles of spectrophotometry	18	125
BI 11.21	Demonstrate the estimation of glucose, creatinine, urea and total protein in serum	19	136
BI 11.9	Demonstrate the estimation of serum total cholesterol and HDL-cholesterol	20	144
BI 11.11	Demonstrate estimation of calcium and phosphorus	22	152
BI 11.11	Demonstrate estimation of calcium and phosphorus	23	155
BI 11.21	Demonstrate the estimation of glucose, creatinine, urea and total protein in serum	24	159

Contd.

xii Practical Biochemistry

<i>Code</i>	<i>Competency</i>	<i>Chapter</i>	<i>Page number</i>
BI 11.7	Demonstrate the estimation of serum creatinine and creatinine clearance	27	171
BI 11.21	Demonstrate the estimation of glucose, creatinine, urea and total protein in serum	27	171
BI 11.22	Calculate albumin: globulin (AG) ratio and creatinine clearance	27	171
BI 11.12	Demonstrate the estimation of serum bilirubin	28	174
BI 11.8	Demonstrate estimation of serum proteins, albumin and A:G ratio	29	179
BI 11.21	Demonstrate the estimation of glucose, creatinine, urea and total protein in serum	29	179
BI 11.8	Demonstrate estimation of serum proteins, albumin and A:G ratio	30	182
BI 11.22	Calculate albumin: globulin (AG) ratio and creatinine clearance	30	182
BI 11.13	Demonstrate the estimation of SGOT/ SGPT	33	191
BI 11.14	Demonstrate the estimation of alkaline phosphatase	34	195
BI 11.15	Describe and discuss the composition of CSF	35	199
BI 11.5	Describe the use of paper chromatography	36	204
BI 11.19	Outline the basic principles involved in the functioning of instruments commonly used in a biochemistry laboratory and their applications	36	204