

Practical Biochemistry

with Clinical Correlation

for MBBS Students

Third Edition

Third Edition

Salient Features

- This book covers all the practical competencies prescribed by NMC
- Basics of all the practicals described in easy language before the description of procedure
- Real pictures of actual colour of reactions for various qualitative and quantitative experiments are placed at multiple places
- Ample number of questions given at the end of each chapter for *viva voce*
- A separate section is added to discuss various diagnostic laboratory investigations results, as to make the learner confident in interpreting patient's blood report
- Micronutrient deficiency related charts are given and explained
- Sixty-three case scenarios and their diagnostic and therapeutic approach discussed in detail for ECE (Early Clinical Exposure)

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is currently Professor and Head, Department of Biochemistry, and Head, MEU, Dr Baba Saheb Ambedkar Medical College and Hospital, New Delhi. She has been actively involved in teaching biochemistry to medical undergraduate and postgraduate students for the past 17 years. Teaching is her passion and she is popular among her students for simplified and fascinating approach towards the subject with strong clinical connections. Other popular books which she has authored are *Competency-Based Textbook of Biochemistry with Clinical Approach and Case Studies for MBBS Students*, *Concepts in Biochemistry based on CBME*; *Practical Biochemistry based on CBME* and *Review of Biochemistry for PGME*, all brought out by CBSPD.

She has completed Advance Course in Medical Education (ACME) conducted by MCI in 2017 and has completed and published many innovative projects in the field of medical education.

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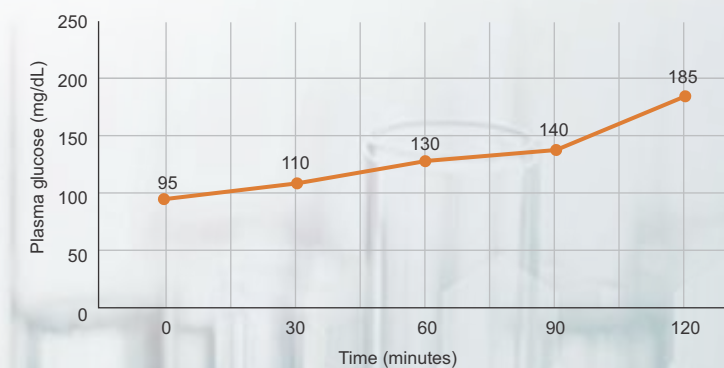


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As per the latest CBME Guidelines |
Competency Based Undergraduate Curriculum for the Indian Medical Graduate



Poonam Agrawal



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to

*My Husband
Dr Mohit Agarwal*



Preface to the Third Edition

I feel happy and privileged to present completely revised and updated third edition of *Practical Biochemistry with Clinical Correlation for MBBS Students* which was well received in its previous editions. I have received innumerable feedback and suggestions from faculty and learners for further improvement of this book. I am thankful to all of them for taking out time and mailing me their ideas for betterment of the book.

Many such ideas have been incorporated in this edition, for example, index has been added at the end of the book. All chapters are thoroughly revised and key points are added at multiple places. Many real pictures of coloured complexes have been added to further enhance the understanding of practicals. Additionally, viva voce questions and answers are further strengthened and many new questions have been incorporated in most of the chapters.

I hope students find this book very useful to understand the basic concept of various practicals and get guidance to conduct these experiments in an easy and reproducible manner. Clinical application of various practicals has been given special emphasis which help students to relate these experiments for disease diagnosis and management.

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Preface to the First Edition

This book is based on Competency Based Medical Education (CBME) curriculum implemented by MCI. The focus of current CBME curriculum is on developing the competencies in medical students along with clinical correlation of subject biochemistry. According to current guidelines, the practical in biochemistry in medical college should be relevant in clinical diagnosis and management of the patient.

Old and obsolete practicals like gastric juice analysis, titrations, etc., have no role in current MBBS curriculum rather emphasis is on automated techniques, point-of-care testing and techniques and tools required in disease diagnosis. Accordingly these outdated techniques have been replaced by new state-of-the-art techniques and their application in clinical setting in relevant chapters.

I sincerely hope that this attempt to present the practicals in biochemistry for medical undergraduates in **conceptual, clinical and correlated fashion** will be appreciated by medical students and faculties.

Feedback and suggestions are welcome.

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First of all, I would like to thank Almighty for giving me the dream and then the courage to work hard to fulfil it.

I thankfully acknowledge the love and belief of my dear students which has motivated me to write this to make their understanding of practical in subject easier.

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