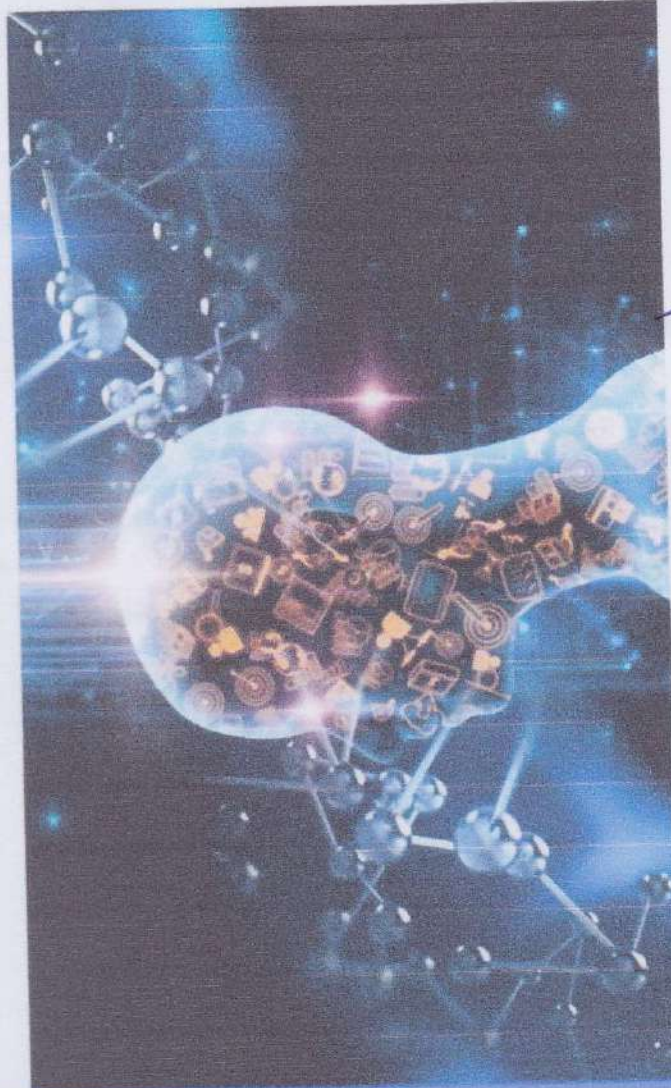




# MCCQ's in

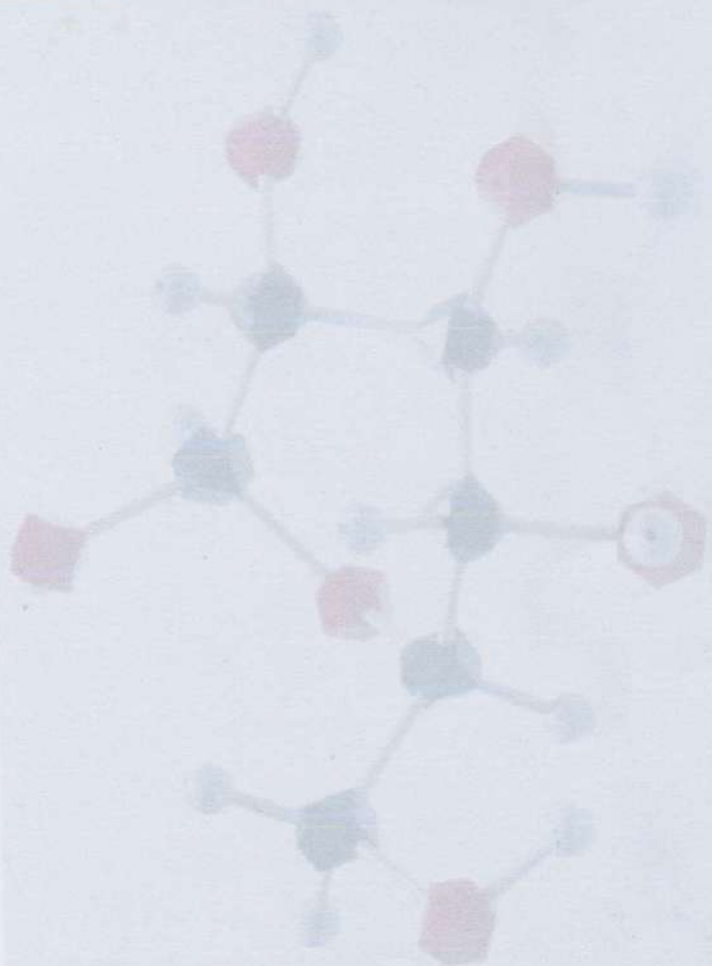
## MEDICINAL CHEMISTRY

Prof. Dr. Sunila T. Patil  
Prof. Md. Rageeb Md. Usman  
Prof. Dr. Vijay A. Jagtap



Pee Vee (Regd.)

PRINCIPAL  
P.S.V.P. Mandals, College of Pharmacy  
SHAHADA-425489, Dist. NANDURBAR



ISBN 9781543342819



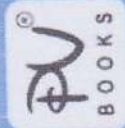
### S. VIKAS AND COMPANY (MEDICAL PUBLISHERS)

ADMIN : ND-106, BIKRAMPURA, JALANDHAR CITY-144 006 (PUNJAB), INDIA  
SALES : ND-227, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
PRODUCTION : ND-226, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
PHONE : 0181-5651718, 5022729, 894786-6445  
CUSTOMER CARE : For any queries, please contact - 054756-14248

EMAIL : sv\_beech@yahoo.com

Online Shop : [www.pvbooks.in](http://www.pvbooks.in)

Also Buy at [amazon.in](http://amazon.in)





### S. VIKAS AND COMPANY (MEDICAL PUBLISHERS)

ADMIN : NO-105, BIRDAMPURA, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
SALES : NO-227, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
PRODUCTION : NO-225, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
Phone : 0191-3050784, 3032738, 034786-64645  
CUSTOMER CARE : For any queries, please contact - 094736-14348  
EMAIL : sv\_books@yahoo.com  
Online Shop : www.pvbooks.in



THEORY CUM PRACTICAL

# MEDICINAL CHEMISTRY-I

Strictly As Per Syllabus Prescribed for B. Pharmacy,  
Semester-IV by Pharmacy Council of India, New Delhi



Mrs. Sheetal V. Patil  
Mrs. Swati G. Patil  
Dr. Sunila T. Patil  
Dr. Md. Rageeb Md. Usman

Pee Vee (Regd.)

PRINCIPAL  
P.S.G.V.P. Mandals, College of Pharmacy  
SHAHADA-425409, Dist. NANDURBAR

# CHEMISTRY OF NATURAL PRODUCTS

For Undergraduate And Postgraduate Students  
In Pharmaceutical Sciences



Dr. SUNIL S. JALALPURE  
HAMID YAHIYA HASNI SAYYED  
Dr. JAVESH K. PATIL

**NIRALI PRAKASHAN**  
ADVANCEMENT OF PHARMACEUTICALS  
**PRINCIPAL**  
Mandal's College of Pharmacy  
SHAHADA - 425409, Dist. NANURBAR

CHEMISTRY OF NATURAL PRODUCTS

Dr. JALALPURE • HASNI • Dr. PATIL

N2382

## About the Authors



**Prof. (Dr.) SUNIL S. JALALPURE**  
College of Pharmacognosy, Dharwad  
Prof. Sunil S. Jalalpure presently working as a Professor, Department of Pharmacognosy, Dharwad  
Pharmacy, KLE University, Belagavi. He completed his B.Pharm. from Karnataka University of Health  
(1996) and obtained his M.Pharm. (1998) and Ph.D. (2005) degrees from Rajiv Gandhi University, (2010)  
Sciences, Bangalore, Karnataka. He has undergone research training at Rhodes University, Grahamstown, South Africa, on analytical instruments used in the standardization and quality assurance  
of pharmaceuticals.

Dr. Sunil Jalalpure is the recipient of the prestigious "APTI Pharmacy Teacher of the Year Award - 2017" and the Best  
Research Publication Award for the year 2017 and also received APTI Young Pharmacy Teacher Award for the year 2012 by  
the Association of Pharmaceutical Teachers of India (APTI). He received "ISP Eminence Award-2018" by Indian Society of  
Pharmacognosy for distinguished contributions to the society of Pharmacognosy & recognition in teaching & research in  
Pharmacognosy stream. Dr. Jalalpure received STARS (Sri Subbaraya Setty Teachers and Research Students) award 2017 in  
recognition of his merit in academic research and motivating young Pharmacy students instituted by American  
Association of Government College of Pharmacy (Bengaluru) Alumni, New York, USA.

Dr. Sunil Jalalpure is also recipient of Young Scientist and Best teacher awards by KLE University, Belagavi. He has received  
financial support from various funding agencies like UGC, AICTE, DST, DBT and ICMR for research projects, to organize and  
attend conferences/workshops. He is member of several pharmacy professional societies and has chaired several  
scientific sessions at national and international conferences. He has worked as organising secretary for several national  
and international conventions. He has been invited to visit Australia, Thailand, Malaysia and South Africa to attend and  
present research papers at conferences.

Prof. Jalalpure has published over 110 scientific papers in national and international journals. He has 3 intellectual  
property rights to his credit. He has successfully guided 40 M. Pharm. and 14 Ph.D. students and one Post Doc fellow  
towards successful completion of their research. Prof. Jalalpure authored a Text Book of Pharmaceutical Biotechnology  
published by Elsevier Publications and also authored a book chapter on "HERBOSOMES" which is published in book,  
NanoBioMedicine volume-6 (Drug Nano Carriers).



**HAMID YAHIYA HASNI SAYYED**  
Hamid Yahiya Hasni Sayyed currently working as an Assistant Professor, Department of Pharmacognosy  
and Phytochemistry, Poojya Sane Guruji Vidya Prasark Mandal's College of Pharmacy, Shahada, Dist.  
Nandurbar, Maharashtra. He completed his D. Pharm. from A.I.T.'s Institute of Pharmacy, Malegaon in  
2000, B.Pharm. from N.D.M.V.P. Semaj's College of Pharmacy, Nasik affiliated to Pune University in 2003  
and obtained his M.Pharm. from S.V.B's College of Pharmacy, Dombivli (E) affiliated to Mumbai University  
in 2006.

Mr. Hamid has more than 12 years of teaching and research experience along with 18 months of marketing experience. He  
has published 25 scientific papers in national and international journals and presented 20 papers at national and  
international conferences. He has guided 14 groups of students of B. Pharmacy. He is life member of Association of  
Pharmaceutical Teachers of India. He has registered 01 intellectual property right.



**Dr. JAVESH K. PATIL**  
Dr. Javesh K. Patil presently working as an Associate Professor, Department of Pharmacognosy and  
Phytochemistry, Poojya Sane Guruji Vidya Prasark Mandal's College of Pharmacy, Shahada, Dist.  
Nandurbar, Maharashtra. He completed his B.Pharm. from P.S.G.V.P. Mandal's College of Pharmacy,  
Shahada affiliated to North Maharashtra University, Jalgaon in 2002 and completed his M. Pharm. from  
K.L.E.'s College of Pharmacy, Belgaum affiliated to Rajiv Gandhi University of Health Sciences, Bangalore,  
Karnataka in 2006 and Ph.D. degree in 2017.

Dr. Javesh has more than 13 years of teaching and research experience. He has published  
30 scientific papers in national and international journals and presented 26 papers at national and  
international conferences. He has guided 06 M. Pharm. students and 16 groups of students of  
B. Pharm. He is life member of Association of Pharmaceutical Teachers of India. He has worked as  
organising secretary and member for several seminars.

**NIRALI PRAKASHAN**  
CONSTRUCTION

1312, Shivaji Nagar, 'Abhyudaya Pragati', Off. J. M. Road, Pune 411006  
Tel: (+91-020) 2551 2336/719 • Fax: (+91-020) 2551 1379  
E-mail: niralipune@pragationline.com

Also find us on [www.facebook.com/niralibooks](http://www.facebook.com/niralibooks)

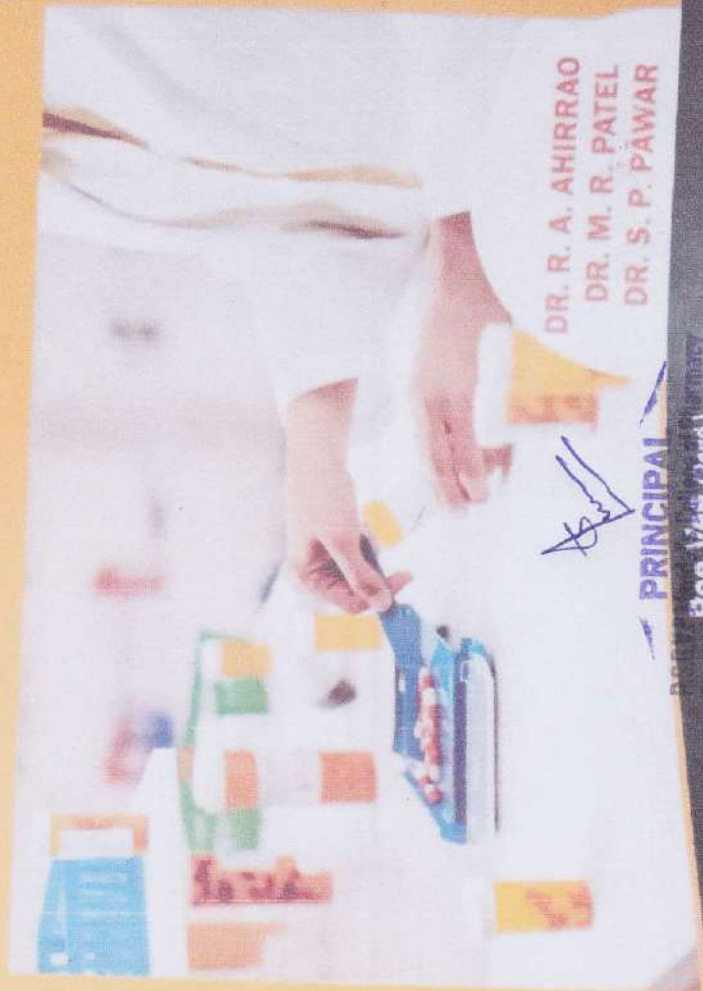




A TEXT BOOK OF

# PHARMACY PRACTICE

Strictly As Per Syllabus Prescribed for B. Pharmacy,  
Semester-VII by Pharmacy Council of India, New Delhi



DR. R. A. AHIRRAO  
DR. M. R. PATEL  
DR. S. P. PAWAR

PRINCIPAL

Dr. R. A. Ahirrao  
Dr. M. R. Patel  
Dr. S. P. Pawar

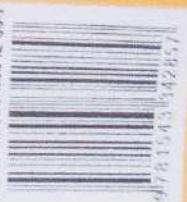


## A TEXT BOOK OF PHARMACY PRACTICE

DR. R. A. AHIRRAO  
DR. M. R. PATEL  
DR. S. P. PAWAR



ISBN 97815-43342-85-7



### S. VIKAS AND COMPANY (MEDICAL PUBLISHERS)

ADMIN : ND-106, BIKRAMPURA, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
SALES : ND-227, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
PRODUCTION : ND-226, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA  
PHONE : 0191-5054798, 5052798, 094786-64648  
CUSTOMER CARE : For any queries, please contact - 094786-14148  
EMAIL : pv\_books@yahoo.com  
Online Shop : www.pvbooks.in





**Dr. Rajesh A. Ahirrao**  
M. Pharm., Ph.D.

Dr. Rajesh A. Ahirrao's College of Pharmacy, Shihada, Maharashtra. He did his Ph.D. under the supervision of Dr. M. R. Patel (ASST. Registrar, Shri Govind Guru University, P.S.G.V.P. Mandal's College of Pharmacy, Shihada, Maharashtra) from K.J.S.O.P. (B.Sc. COP, B.Ed., Gujarat) at J.T. University, Rajeshwar. He did his M.Pharm. from K.J.S.O.P. (B.Sc. COP, B.Ed., Gujarat) in 2007. He has guided more than 40 undergraduate students for their projects. He has 81 research papers published in various journals. More than 37 research publications are on his credit published in International and National Journals. About 21 research abstracts have been presented by him in various international and national conferences. He is working as a member of editorial board and reviewer in 2 reputed journals. Presently he is working as Assistant Professor in P.S.G.V.P. Mandal's college of pharmacy, Shihada, Dist- Nandurbar, affiliated to North Maharashtra University, Jalgaon.



**Dr. Sunil P. Pawar**  
M. Pharm., Ph.D.

Dr. Sunil P. Pawar has nearly 20 years of research and teaching experience at both U.G and PG levels. He did his Ph.D. under the supervision of Dr. P. G. Yeole (Pro VC, Nagpur University) at the department of pharmaceutical science, Nagpur University. He has supervised 08 Ph.D. (06 Registered, 02 completed) and more than 05 M. Pharm. research projects. He has 05 book published to his credit. More than 55 research publications are on his credit published in international and national journals. Presently he is serving as Principal, P.S.G.V.P. Mandal's college of pharmacy, Shihada, Dist- Nandurbar, affiliated to North Maharashtra University, Jalgaon.



**Mr. Vipul H. Jain**  
M. Pharm.

Mr. Vipul H. Jain has nearly 64 years of research and teaching experience at U.G level. He did his M.Pharm. from TVES College of Pharmacy, Fozpur, Maharashtra in 2009. He has guided more than 20 undergraduate students for their projects. More than 14 research publications are on his credit published in international and national journals. About 02 research abstracts have been presented by him in various proceedings of national and international conference. He has also worked with Macefods pharmaceutical as an Junior QA officer at Vapi, Gujarat. Presently he is working as Assistant Professor in P.S.G.V.P. Mandal's college of pharmacy, Shihada, Dist- Nandurbar, affiliated to North Maharashtra University, Jalgaon.



**Mr. Sandip A. Tadavi**  
M. Pharm.

Mr. Sandip A. Tadavi has nearly 8 years of research and teaching experience at U.G & J levels at PG level. He did his M. Pharm. from School of Pharmacy, SRTM University, Nashik, Nanded in 2009. 15 PG students has completed Research project under his guidance. More than 20 research publications are on his credit published in international and national journals. Presently he is working as Assistant Professor in P.S.G.V.P. Mandal's college of pharmacy, Shihada, Dist- Nandurbar, affiliated to North Maharashtra University, Jalgaon.



**SUCCESS PUBLICATIONS**

Address : Radha Krishna Apartment, 535, Shantivar Peth, Appa Balwant Chowk, Opp. Prabhat Theatre, Pune - 411 004  
Ph. No. 24433374, 24434662, 64011289, Mobile : 9328315464  
E-mail : sharpgroup11@rediffmail.com  
Website : www.harpmultinational.com

ISBN : 978-93-88441-33-9

PT-  
2245

# TEXT BOOK OF PHARMACEUTICAL MICROBIOLOGY

S. Y. B. Pharm. (Sem.-III) (BP-303T)



**Dr. Rajesh A. Ahirrao**  
**Dr. Sunil P. Pawar**  
**Mr. Vipul H. Jain**  
**Mr. Sandip A. Tadavi**



**SUCCESS PUBLICATIONS**



**PRINCIPAL**  
P.S.G.V.P. Mandal's, College of Pharmacy  
SHAHADA - 425409, Dist. NANDURBAR

# Practical PHARMACEUTICAL MICROBIOLOGY

The present book "Practical Pharmaceutical Microbiology" meets the syllabus designed by the Pharmacy Council of India and is written with a scientific approach covering various topics of Practical Pharmaceutical Microbiology. This manual covers nearly 20 experiments based on General and Pharmaceutical Microbiology which would serve as a guide to B-Pharmacy students of all the Indian Universities. The main aim of writing this book is to cover theoretical and experimental parts of all the topics included in the curriculum for Practical Pharmaceutical Microbiology given in the revised syllabus of B-Pharm students. The various concepts and phenomenon have been explained in simple terms with the help of appropriate diagrams. The experimental methods are tailor made to meet the modest facilities available in many of the colleges and universities within the country.



Ph: 011-22223254, 22223622  
 Email: birla\_publications@gmail.com  
 Website: www.birlapublications.com  
 An ISO 9001:2015 Certified Co.

**Birla**  
 PUBLICATIONS  
 PVT. LTD.

# Practical PHARMACEUTICAL MICROBIOLOGY

(As per PCI Syllabus)

Vipul H. Jain  
 Dr. R.A. Ahirrao  
 Dr. S.P. Pawar  
 S.A. Tadavi



PRINCIPAL  
 P.S.G.T.P.M.'s, College of Pharmacy  
 SHAHADA - 625409, Dist. MANDURBAR

**BIRLA PUBLICATIONS PVT. LTD.**

Practical Pharmaceutical Microbiology

Vipul H. Jain, Dr. R.A. Ahirrao, Dr. S.P. Pawar, S.A. Tadavi





# PRACTICAL PHARMACOLOGY-I



ISBN 97815-43343-05-0



**S. VIKAS AND COMPANY (MEDICAL PUBLISHERS)**

ADMIN : ND-106, BIKRAMPURA, JALANDHAR CITY-144 008 (PUNJAB), INDIA

SALES : ND-227, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA

PRODUCTION : ND-226, TANDA ROAD, JALANDHAR CITY-144 008 (PUNJAB), INDIA

PHONE : 0151-5054758, 5052758, 094786-64645

CUSTOMER CARE : For any queries, please contact - 094786-14148

EMAIL : [pv\\_books@yahoo.com](mailto:pv_books@yahoo.com)

Online Shop : [www.pvbook5.in](http://www.pvbook5.in)



DR. HEMANT P. SURYAWANSHI  
DR. MD. RAGEEB MD. USMAN  
DR. SUNIL P. PAWAR

# PRACTICAL PHARMACOLOGY-I

*Strictly as per Syllabus Prescribed for B. Pharmacy,  
Semester-IV by Pharmacy Council of India, New Delhi*



Pee Vee (Regd.)

PRINCIPAL

P.S.G.V.P. Medicals College of Pharmacy  
SHAHIDA, 125 809 JIND, HANURBAK

## About Everest's Prestigious Author



**Dr. Hemant P. Suryawanshi** presently is working as an Assistant Professor at Department of Pharmacology, P. S. G. V. P. M. S., College of Pharmacy Shahada (MS). He did B-Pharm. from North Maharashtra University, Jalgaon, M. Pharm. in subject Pharmacology from Annamalai University, Tamilnadu and Ph.D. from JET University, Rajasthan. He has more than 11 years of teaching experience. He has published more than 30 papers in various national and international journals also attended 20 national and international conferences and seminars. He has published a book entitled MCQ'S in Pharmacology (Part D). He has a life member of several national bodies like APTI, IJPI etc. Dr. Suryawanshi has an excellent track record in academic and actively engaged in teaching, research and administration.



**Dr. Md. Rageeb Md. Usman** currently working as Associate Professor at Smt. Sharadchandrika Suresh Patil College of Pharmacy, Chopda. He has more than 11 Years Exp. He has to his Name more than 50 books, 2 chapters, 90 Research/Review publications and 205 National International Conferences attended. Dr. Md. Rageeb Life Member: APTI, SPER (Joint Secretary, Central), APP (President, MH State), HHPA, IPGA, IPA (President, Jalgaon), RSH (MH State Br.), SRHCP (President, MH), IPA, ISP, ABP, INHS, Assoe Editor of several professional journals and magazines. Dr. Md. Rageeb guided more than 50 students. He Conferred Various Awards, Fellowship 2013, 2014, 2015, Appreciation 2013, 2014, 2017, Young Performer 2013, Young Pharmacy Teacher 2014, 2016, 2017, Young Innovative Researcher 2014, Young Talent 2014, 2016, Young Pharmacist 2015, Young Excellent Academic 2016, Life Time Achievement 2016, Young Scientists 2017 & Eminent Teacher Award 2017. His Biography included in "Who's Who in the World 2016, 2017 & 2018."



**Prof. Dr. S.P. Pawar** has nearly 20 years of research and teaching experience. He is a leading scientist and well-known academician of international repute. He has supervised 08 Ph.D. (06 Registered, 02 completed) and more than 8 M. Pharm research Projects. More than 57 research publications are on his credit published in international and national journals. About 50 research abstracts has been presented by him in various proceeding of national and international conference. He has travelled widely in India as inspection Committee member and Chairman, appointed by Pharmacy Council of India and NMTU, Jalgaon. He has been honored by NMTU Jalgaon as best administrator in pharmacy division and appointed as Member, Board of studies for subject's Pharmacognosy. He has delivered lectures, keynote addresses and chaired many sessions in several national and international conferences as well as symposia in India. Presently he is serving as principal, P.S.G.V.P. Mandal's College of Pharmacy, Shahada affiliated to North Maharashtra University, Jalgaon.

Ask for Everest Pharmacy Books exclusively for All India Pharmacy Students and Professors

WhatsApp +91 9822024092 / +91 8550938633 / +91 9822546363

OR Email on [everestpune@yatooc.co.in](mailto:everestpune@yatooc.co.in)

Like us on Everest Publishing House

ISBN: 978 81 7660 355 3



**Everest Publishing House**  
[www.everestpublishinghouse.com](http://www.everestpublishinghouse.com)

174.00

**Everest Publishing House**

Our Faith in Excellence is a Guarantee of your Success



PRINCIPAL

P.S.G.V.P. Mandal's, College of Pharmacy  
SHAHADA-425409, Dist. NANDURBAR



Prof. Dr. Hemant P. Suryawanshi presently working as an Assistant Professor at Department of Pharmacology, P.S.G.V.P.M.S. College of Pharmacy Shahada (MS). He did B.Pharm. from North Maharashtra University, Jalgaon. M.Pharm. in subject Pharmacology from Ammalal University, Tamilnadu and Ph.D. from JII University, Rajasthan. He has more than 11 years of teaching experience. He has published more than 30 papers in various national and international journals also attended 20 national and international conferences and seminars. He has a life member of several national bodies like APTI, IPII etc. Dr. Suryawanshi has an excellent track record in academic and actively engaged in teaching, research and administration.



Prof. Md. Rameez Md. Usman Completed B. Pharm., M. Pharm. from North Maharashtra University, Jalgaon. Asst. Prof. at Smt. Sharadchandrika Suresh Pant College of Pharmacy, Chopda. He is highly Professional academician and Researcher in Pharmacy field. Prof. Md. Rameez over more than 10 Year Experience in teaching, Research and authorship of books. He has to his Name more than 45 books, 2 chapter in book, 90 Research Review publications and 210 Presentation/Participation of National/International Conferences. Prof. Md. Rameez Life Member, Assn. of Pharmaceutical Teachers of India, Soc. of Pharmaceutical Education & Research (Joint Pharmacy Assn.), Assn. of Pharmacy Professionals (President, Maharashtra State Br.), Indian Hospital Pharmacy Assn., Indian Pharmacy Graduates Assn., Indian Pharmacists Assn. (President, Jalgaon Br.), Research Scholar High Maharashtra State Br., Soc. of Researchers & Healthcare Professionals (President, Maharashtra State Br.), Indian Pharmacists Assn. Member Indian Soc. of Pharmacognosy, Assn. of Biotechnology & Pharmacy, International Natural Hygiene Soc. Assoc. Editor/Editor of several professional journals and magazines, Prof. Md. Rameez guided more than 50 students for project. He conferred Fellowship Award 2013 (twice), 2014, 2015 (twice), Appreciation Award for Poster 2013, Young Performer Award 2013, Young Pharmacy Teacher Award 2014, 2016, 2017, Best Oral Presentation Award 2014, Young Innovative Researcher Award 2014, Appreciation Award for Oral Presentation 2014, Young Talent Award 2014 (twice), 2016, Young Pharmacist Award 2015, Young Excellent Academic Award 2016, Life Time Achievement Award 2016, Eminent Teacher Award 2017 and Young Scientists Award 2018. Prof. Md. Rameez Biography has been included in the renowned directory "Who's Who in the World 2016, 7 Central India Educationists Who's Who in the World 2017 and Famous India: Nation's Who's Who 2018."



Prof. Dr. S.P. Pawar has nearly 20 years of research and teaching experience at both U.G and P.G levels. He is a leading scientist and well-known academicians of international repute. He did his Ph.D. under the supervision of Prof. Dr. P.G. Yeole (Pro VC, Nagpur University) at the department of pharmaceutical science, Nagpur University. He has supervised 08 Ph.D (06 Registered, 03 completed) and more than 08 M. Pharm research Projects. More than 57 research publications are on his credit published in international and national journals. About 50 research abstracts has been presented by him in various proceeding of national and international conference. He is a widely travelled person in India as inspection committee member and chairman, appointed by pharmacy council of India and North Maharashtra University, Jalgaon. He takes very active interest in professional matters and under his leadership and administration college of pharmacy, Shahada was accredited by NBA. He has been honored by NMMU as guest in best administrator in pharmacy division and appointed as Member, Board of studies for subject's Pharmacology. Dr. S.P. Pawar was appointed as regional co-ordinator of North Maharashtra region, by Association of Pharmaceutical teachers of India (Maharashtra state branch). He was also served as a joint secretary for 10<sup>th</sup> APTI National Convention, 2005 organized by department of pharmaceutical science, Rashtrasant Tukdoji Maharaj, Nagpur University, Nagpur. He has delivered invited lectures, keynote addresses and chaired many session in several national and international conferences as well as symposia in India. Presently he is serving as principal, P.S.G.V.P.M.S. college of pharmacy, Shahada affiliated to North Maharashtra University, Jalgaon.

**PRINCIPAL**  
P.S.G.V.P.Mandal's, College of Pharmacy  
SHAHADA-425409, Dist. NANBURBAR

# MCQ's in Pharmacology

(Part - I)

I Prof. Dr. Hemant P. Suryawanshi I Prof. Md. Rameez Md. Usman  
I Prof. Dr. Sunil P. Pawar



MCQ's in Pharmacology

I Prof. Dr. Hemant P. Suryawanshi I Prof. Md. Rameez Md. Usman  
I Prof. Dr. Sunil P. Pawar



**SUCCESS PUBLICATIONS**



ISBN: 978-93-108-127-88-4

Price : 150/-



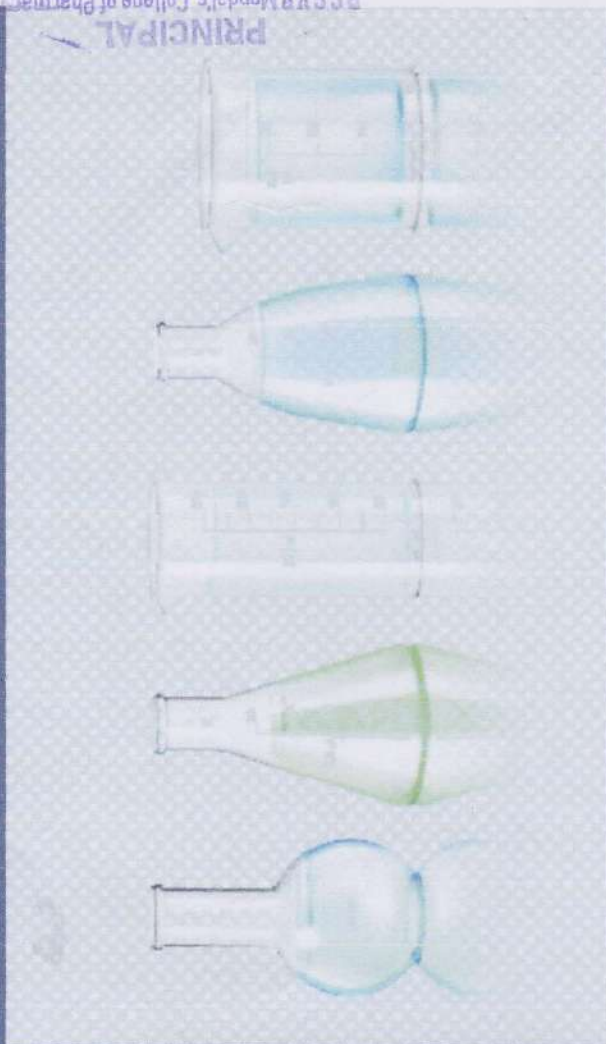
**SUCCESS PUBLICATIONS**

Address : Radha Krishna Apartment, 535, Shanliwar Peth, Appa Balwant Chowk, Opp. Prabhat Theatre, Pune - 30.  
Ph. No. 24433374, 24434662, 64011289, Mobile : 9325315464  
E-mail : shargroup31@rediffmail.com  
Website : www.sharpmultinational.com



PRINCIPAL  
P.S.G.V.P.Mandal's, College of Pharmacy  
SHAHADA-425409, Dist. NANBURBAR

Gel dosage forms are successfully used as drug delivery systems considering their ability to control drug release and to protect medicaments from a hostile environment. The aim of this work was to investigate the properties of carbopol 934, HPMC K4M polymeric system in water-miscible co-solvents such as glycerin and alcohol. Benzocaine is a local anesthetic, treatment of mouth ulcer and mucosal pain relief.



PRINCIPAL  
P.S.G.V.P. Mandals, College of Pharmacy  
SHAHADA-425409, Dist. NANDURBAR



Prof. Prachee K. Dusane is Assistant Professor in Quality Assurance at P.S.G.V.P.M College of Pharmacy Shahada. She has 3.8 years academic experience. She graduated B.pharm in 2013 and M.pharm in QA in 2015 from NMU Jaigaon. She published review and research papers in various journals. Eight students completed B.pharm projects under her guidance.

Prachee Dusane  
Ranjit D. Vasave  
Dinesh R. Valvi

# A Formulation and Evaluation of Mucoadhesive Benzocaine Gel



978-620-0-47392-9

PRINCIPAL  
P.S.G.V.P. Mandals, College of Pharmacy  
SHAHADA-425409, Dist. NANDURBAR



## ABOUT THE BOOK

Biochemistry deals with complete understanding of the molecular levels of the chemical process associated with living cells. The scope of the subject is providing biochemical facts and the principles to understand metabolism of nutrient molecules in physiological and pathological conditions. It is also emphasizing on genetic organization of mammalian genome and hetero & autocatalytic functions of DNA.

The Objectives upon completion of course student shall able to:

1. Understand the catalytic role of enzymes, importance of enzyme inhibitors in design of new drugs, therapeutic and diagnostic applications of enzymes.
2. Understand the metabolism of nutrient molecules in physiological and pathological conditions.
3. Understand the genetic organization of mammalian genome and functions of DNA in the synthesis of RNAs and proteins.
4. Understand Qualitative analysis of carbohydrates (Glucose, Fructose, Lactose, Maltose, Sucrose and starch).
5. Understand Quantitative analysis of reducing sugars (DNSA method) and Proteins (Biuret method).
6. Understand Determination of blood creatinine, blood sugar, serum total cholesterol, albumin, Casein, Salivary amylase activity.

This book contains theoretical point based on the Pharmacy Council of India prescribed syllabus and after each Chapter MCQ, with Keys, Short Q. and long Q. with answer is given for Exercise. Book designed according to the curriculum of undergraduate courses in pharmacy by Pharmacy Council of India New Syllabus-useful All over India.

We sure this book will be found very useful by B. Pharm. students, Professor and Pharma industry.

## OUR IMPORTANT BOOKS



Also Available On : amazon | Flipkart | snapdeal | SHOPCLUES | paytm

**GLOBAL EDUCATION LIMITED**  
(An ISO 9001: 2015 Certified Company)

**Publication Division**  
Office No. 112, 1st Floor,  
Panchratna CHSK  
M.P. Marg  
Opera House Gurgaon  
Mumbai - 400004, India

**Corporate Office**  
Web: [www.globaledu.net.in](http://www.globaledu.net.in)  
Email: [info@globaledu.net.in](mailto:info@globaledu.net.in)  
Toll Free No.: 1800270733  
Nagpur - 440001,  
Maharashtra.

MRP : 275.00

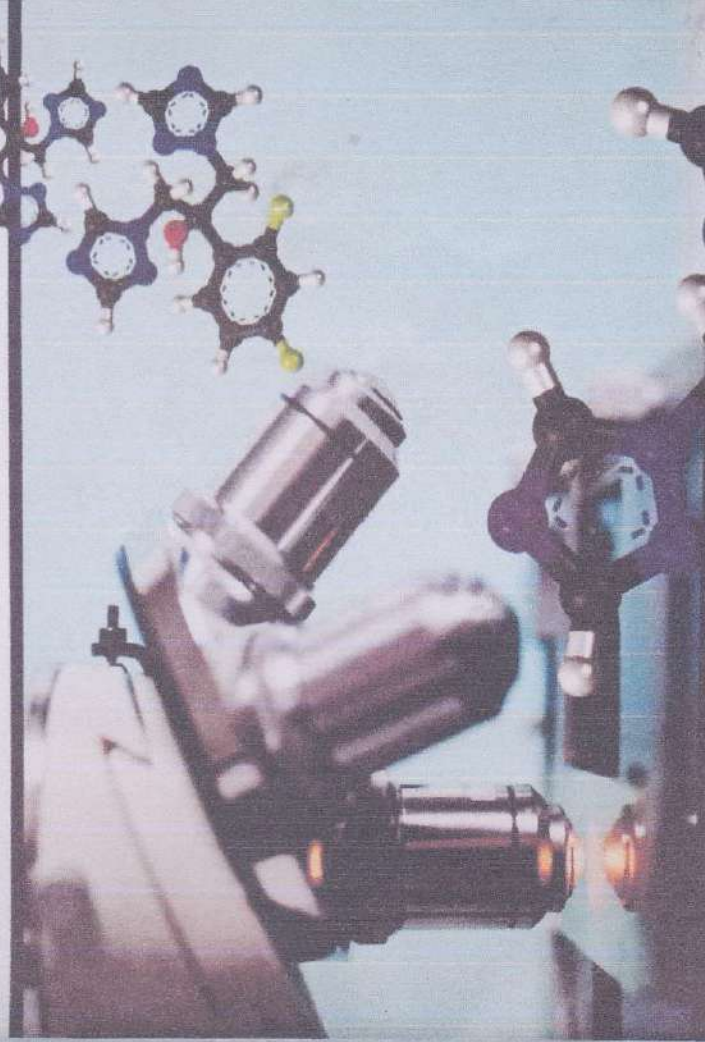


GLOBAL EDUCATION

# TEXT BOOK BIOCHEMISTRY

As Per PCI Regulations

**First Year B. Pharm. (Sem. II)**



Text Book Biochemistry



1028



Rahul B. Lovhare  
Dr. Sunil P. Pawar

Dr. Md. Rageeb Md. Usman

**PRINCIPAL**  
P.S.G.V.P.Mandal's College of Pharmacy  
SHAHADA - 425409, Dist. NANDURBAR