

Panchakshari Shivacharya Trust's Aloor

CHANNABASWESHWAR PHARMACY COLLEGE (DEGREE), LATUR

Basweshwar Chowk, Kava Road, Latur-413512 (Maharashtra)



CRITERION 3

RESEARCH INNOVATION AND EXTENSION

3.3

Research Publications and Awards

3.3.2

Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during last five years

b) Copy of the cover Page, Content page and first page of the publication indicating ISBN number and year of publication for books / chapters



Panchakshri Shivacharya Trust's

CHANNABASWESHWAR PHARMACY COLLEGE (DEGREE)

Kava Road, Basweshwar Chowk, Latur-413512 (Maharashtra) Tel./Fax:- (02382) 243855 DTE Code:- 2253, University Code:- 947, MSBTE Code:- 2041

Email:- channabasweshwar@gmail.com / principalcbpc@gmail.com Website:- www.channabasweshwar.org

Approved by:- Govt. of Maharashtra, PCI, New Delhi, Affiliated to:- S.R.T.M. University, Nanded, MSBTE, Mumbai.

3.3 Research Publication and Awards

- 3.3.2 Number of books and chapters in edited volumes/books published and papers published in national/international conference proceedings per teacher during last five years
- b) i) Number of books published per teacher during last five years

Sr. No.	Name of the Teacher	Title of the book/ chapters published	Year of publication	ISBN/ISSN number of the proceeding	Affiliating Institute at the time of publication	Name of the Publisher	Page No.
1	Dr. V. B Panchabhai	Essential of Medicinal Chemistry-I	2022	978-93-80744-38-5 First edition July- 2022	Channabasweshwar Pharmacy College (Degree), Latur	Career and Pharma publication	1-2
2	Mr. S. S. Hindole	Essential of Pharmacognosy and Phytochemistry-I	2022	978-93-92867-25-5 First edition April 2022	Channabasweshwar Pharmacy College (Degree), Latur	Career and Pharma publication	3-5
3	Dr. O. G. Bhusnure	Practical Handbook of Herbal Drug Technology	2022	978-93-92159-66-4	Channabasweshwar Pharmacy College (Degree), Latur	Pritam Publication	6-8

4	Ms. P. U. Telang	Research Methodology	2022	978-93-91219-51-2	Channabasweshwar Pharmacy College (Degree), Latur	Astitva Prakashan	9-13
5	Dr. R. S. Sakhare	Instrumental Methods of Analysis	2021	978-93-90770-32-8 First edition Nov- 2021	Channabasweshwar Pharmacy College (Degree), Latur	Technical Publications	14-18
6.	Dr. V. B Panchabhai	Essential of Medicinal Chemistry-III	2021	978-93-80744-86-5 First edition Jun- 2021	Channabasweshwar Pharmacy College (Degree), Latur	Career and Pharma publication	19-20
7.	Dr. S. N. Nagoba, Mr. S.S. Ladde	Essential of Novel Drug Delivery System	2021	978-93-80744-73-5 First Edition Jan- 2021	Channabasweshwar Pharmacy College (Degree), Latur	Career and Pharma publication	21-22
8.	Dr. V. B Panchabhai	Essential of Medicinal Chemistry-II	2021	978-93-80744-72-8 First edition January- 2021	Channabasweshwar Pharmacy College (Degree), Latur	Career and Pharma publication	23-24
9	Dr. Ram S. Sakhare,	Medicinal Chemistry-I	2019	978-93-89420-75-3 first edition Nov 2019	Channabasweshwar Pharmacy College (Degree), Latur	Career and Pharma Publication	25-27
10	Mr. S. S. Ladde, Mr. R.D. Wadulkar	Pharmacology-I	2019	978-93-88706-89-6 First Edition Jan- 2019	Channabasweshwar Pharmacy College (Degree), Latur	Nirali Prakashan	28-32

11	Dr. S.N. Nagoba, Shaikh N.S., Attar M.S.	Industrial Pharmacy-I	2019	978-81-942522-0-7 first edition August- 2019	Channabasweshwar Pharmacy College (Degree), Latur	Aruna Prakashan	33-34
12	Mr. S. S. Ladde, Mr. R.D. Wadulkar	Pathophysiology	2018	978-935-1645-20-7	Channabasweshwar Pharmacy College (Degree), Latur	Nirali Prakashan	35-40
13	Mr. R.D. Wadulkar	A text book of Principle of Pathophysiology	2018	978-938-7397-99-6	Channabasweshwar Pharmacy College (Degree), Latur	Nirali Prakashan, Pune	41-44





CHANNABASWESHWAR PHARMACY COLLEGE (DEGREE)

Kava Road, Basweshwar Chowk, Latur-413512 (Maharashtra) Tel./Fax :- (02382) 243855 DTE Code :- 2253, University Code :- 947, MSBTE Code :- 2041

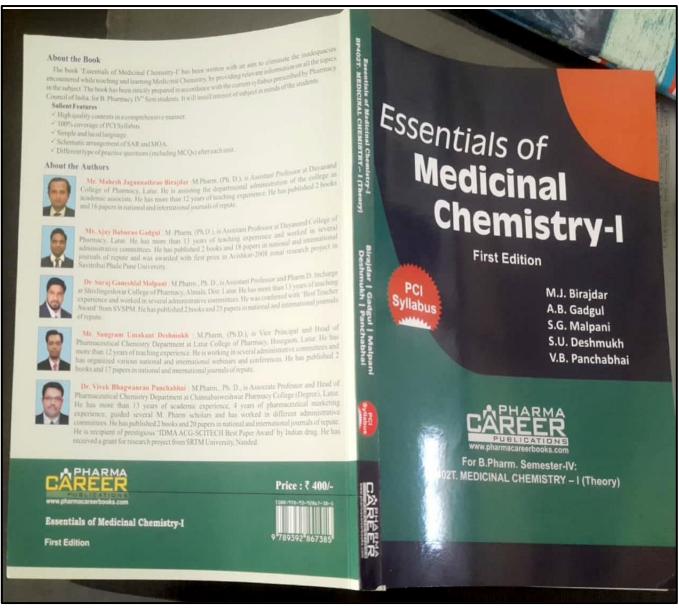
Email:- channabasweshwar@gmail.com / principalcbpc@gmail.com Website:- www.channabasweshwar.org

Approved by:- Govt. of Maharashtra, PCI, New Delhi, Affiliated to:- S.R.T.M. University, Nanded, MSBTE, Mumbai.

1. Dr. V. B Panchabhai,

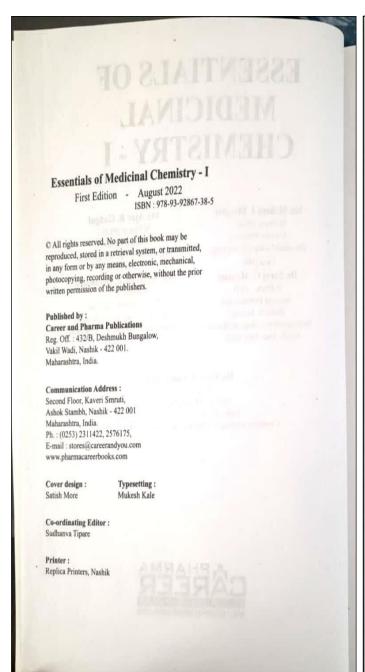
Title of the book: Essential of Medicinal chemistry-I, Year of publication: 2022

Front & Back page of Essential of Medicinal chemistry-I





Content Page of Essential Chemistry-I



	CONTENTS
INIT -	I
1.	Introduction to Medicinal Chemistry
2.	Physicochemical properties in relation to biological action
3.	Drug metabolism
UNIT -	II
4.	Drugs acting on Autonomic Nervous System
	 Adrenergic Neurotransmitters Sympathomimetic Agents Adrenergic Antagonists 77
UNIT -	
5.	Cholinergic Neurotransmitters
	 Parasympathomimetic Agents
UNIT -	
6.	Sedative and hypnotics
7.	Antipsychotic Agents
8.	Anticonvulsants
UNIT -	V
9.	General Anaesthetics
10.	Narcotic and Non-Narcotic Analgesics
11.	Anti-Inflammatory Agents
	• Bibliography



2. Mr. S. S. Hindole,

Title of the book Essential of Pharmacognosy and Phytochemistry-I, Year of publication: 2022

Front & Back page of Essential of Pharmacognosy and Phytochemistry-I

About the Rook

This book is for B.Pharm IV semester students, specially designed to impart basic knowledge about herbal plants, their pharmacognostic account, processing, tissue culture techniques, alternative system of medicine and products obtained from it. It also provides valuable information to other alternative healthcare science students, researchers and industrialists working in the field of pharmacognosy. The book has well labelled diagrams and figures and covers the PCI Syllabus.

About the Authors



Dr. Shyamlila Bimashankar Bavage Principal, Latur College of Pharmacy, Hasegaon, Latur. She did her M. Pharm from K.L.E. University Belgaum, Kamataka and PhD (Pharmacognosy) from Jaipur National University, Jaipur, Rajasthan, She has 12 years academic and administrative experience. She has published 45 review articles and 5 research papers in national and international UGC approved journals and also published one book of pharmacology III. She has been awarded by National Star Golden Award in Hyderabad at 2021.



Mr. S.S. Hindole is HOD (Pharmacognosy), Channabasweshwar Pharmacy College, Latur. He has received the Ratan Tata scholarship during his B.Pharm from K.T. Patil College of Pharmacy, Osmanabad, did M.Pharm from K.L.E. College of Pharmacy, Belgauin and is pursuing his Ph.D. from SRTM University, Nanded, He has 12 years of teaching and administrative experience. He oversees academic activities.

He has worked as a Lecturer in Channabasweshwar Pharmacy College, and later as Assistant Professor. He has published 10 research papers and 1 review paper in national and international journals. He is on editorial board of Indo American Journal of Scientific Research.



Mr. S.V. Garad is Associate Professor & HOD (Pharmacognosy). He has 24 years of teaching experience and is presently working as member of Board of studies of SRTMU, Nanded.

He did his postgraduation from KLE Society's College of Pharmacy, Belgaum. He has worked in Emcure Pharmaceuticals Pvt. Ltd., Pune, and then as Principal in charge at Basveshwar College of Pharmacy, Karmataka. Later he has joined Maharashtra College of Pharmacy, Latur, and became Assistant Professor and then Associate Professor. He has published 12 research papers in national and international journals.



Dr. Ganesh Yogiraj Dama is Professor and Principal, at Shri Gajanan Maharaj Shikshan Prasarak Mandal's Sharadchandra Pawar College of Pharmacy, Otur (Pune), He did his postgraduation from KLES's College of Pharmacy, Belagavi, Karnataka and doctorate from Berhampur University, Berhampur (Orissa). He has over 24 years of academic experience, He has guided 16 M Pharm students and is currently guiding 1 Ph.D. student. He has successfully filed 6 Patents of National and International Intellectual Property Rights. He has authored two books. He is principal investigator and has evaluated Ph.D. research projects at national level. He has to his credit 60 research papers in national and international journals and index in Google Scholars & Thomson Reuters. Dr. Dama has organized national and international seminars, and

has organized 25 national and international webinars. He is Chairman of Board of Studies for Department of Pharmacognosy and Research Recognition Committee member of Savitribai Phule Pune University.







Principal
Channabasweshwar Pharmacy
College (Degree), Latur

4...

Content page of Essential of Pharmacognosy and Phytochemistry-I

Essentials of Pharmacognosy and Phytochemistry-I

First Edition

Dr. Shyamlila B. Bavage M. Pharm, Ph.D

Principal Latur college of Pharmacy, Hasepaon Dist. Latur



M.Pharm. (Ph.D)
Assistant Professor and Head,
Pharmacognosy Department,

Channabanwenhwar Pharmacy College (Degree), Latur.

Mr. Sunil V. Garad

Channahaswethwar Pharmacy College, Latur

MIMIMI

M.Pharm..(Ph.D.) Associate Professor & H.O.D.

Dept. of Pharmacognosy
Maharashtra College of Pharmacy, Nilanga

Dist. Latur

Prof.(Dr.) Dama G. Yogiraj

M.Pharm.,Ph.D Principal

Shri Gajatan Maharaj Shikshan Prasarak Mandal's Sharadchandra Pawar College of Pharmacy

Otur, Dumberwadi, Tal. Junner, Dist. Pune .



INDEX

Sr.	Unit Name	Page No
No.	Unit - I INTRODUCTION TO PHARMACOGNOSY	1
	DEFINITION, HISTORY AND SCOPE OF PHARMACOGNOSY	
1.1		10
1.2	SOURCES OF DRUGS	11
1.3	ORGANIZED DRUG UNORGANIZED DRUG ORGANIZED DRUG UNORGANIZED DRUG	20
1.4.	ORGANIZED DROG GROWN QUALITY CONTROL OF DRUGS OF NATURAL ORIGIN	
	Unit - II CULTIVATION, COLLECTION AND PROCESSING OF HERBAL DRUGS	69
		69
2.1	INTRODUCTION SOILS, SEEDS MATERIAL AND PROPAGATION METHODS	70
2.2	SOILS, SEEDS MATERIAL TO SEED MATERIAL TO S	
2.3.	ASEPTIC METHODS OF MICKO THE (TISSUE CULTURE)	80
_	COOD CLUTIVATION PRACTICES	83
2.4	PLANT HORMONES AND PLANT GROWTH REGULATORS	94
2.5		98
2.6	COLLECTION OF CRUDE DRUGS	100
2.7	HARVESTING OF CRUDE DRUGS	101
2.8	DRYING OF CRUDE DRUGS	103
2.9	GARBLING (DRESSING) OF CRUDE DRUGS	104
2.10	PACKING OF CRUDE DRUGS	104
2.11	STORAGE OF CRUDE DRUGS	
2.12	PRESERVATION/CONSERVATION OF CRUDE DRUGS	105
2.13	QUALITYMANAGEMENT	105
2.14	DOCUMENTATION	106



Content page of Essential of Pharmacognosy and Phytochemistry-I

Sr. No.	Unit Name	Page No.
	Unit - III PLANT TISSUE CULTURE	110
3.1	INTRODUCTION AND HISTORICAL BACKGROUND	
3.2	TYPES OF CULTURE	110
3.3	REQUIREMENTS OF PLANT TISSUE CULTURE TECHNIQUE	115
3.4	NUTRITIONAL REQUIREMENTS	
3.5	GROWTH AND THEIR MAINTENANCE	122
3.6	STAGES OF TISSUE CULTURE	125
3.7	APPLICATIONS OF PLANT TISSUE CULTURE IN PHARMACOGNOSY	127
3.8	EDIBLE VACCINES	130
	Unit - IV ALTERNATIVE SYSTEM OF MEDICINE	132
4.1	INTRODUCTION	137
4.2	AYURVEDIC SYSTEM OF MEDICINE	137
4.3	UNANI SYSTEM OF MEDICINE	138
4.4	SIDDHA SYSTEM OF MEDICINE	143
4.5	HOMEOPATHIC SYSTEM OF MEDICINE	. 147
4.6	CHINESE SYSTEM OF MEDICINE	151
4.7	ALLOPATHIC SYSTEM OF MEDICINE	153
	INTRODUCTION TO SECONDARY METABOLITES	160
4.8	METABOLITES METABOLITES	162
4.9	ALKALOIDS	162
4.10	GLYCOSIDES	163
4.11	FLAVONOIDS	170
4.12	TANNINS	182
4.13		191
	VOLATILE OILS	198
4.14	RESIN AND RESIN COMBINATIONS	201
	Unit -V PLANT PRODUCTS	210
5.1	PLANT PRODUCTS	210
5.2	PRIMARY METABOLITES	219
	BIBLIOGRAPHY	265

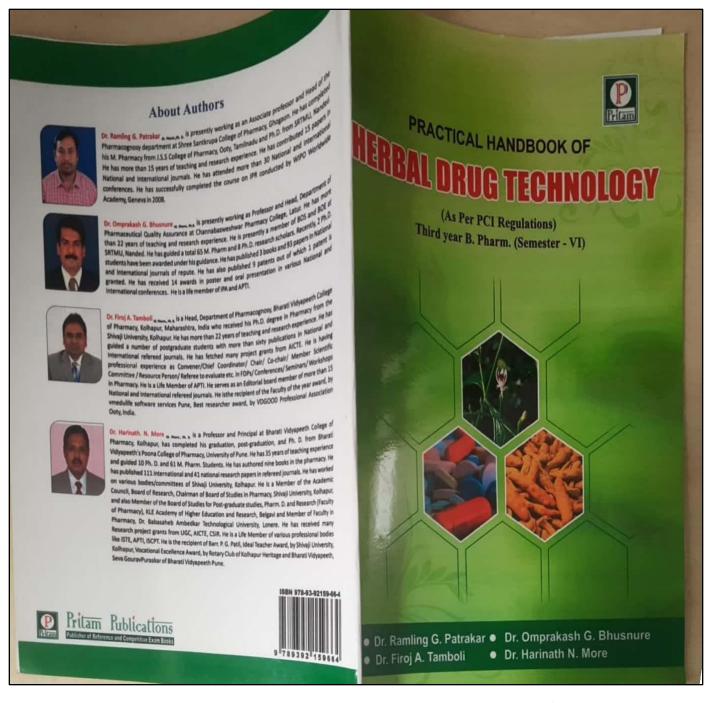


3. Dr. O. G. Bhusnure,

Title of the book: Practical Handbook of Herbal Drug Technology, Year of

publication: 2022

Front & Back page of Practical Handbook of Herbal Drug Technology





Content page of Practical Handbook of Herbal Drug Technology

PRACTICAL HANDBOOK OF HERBAL DRUG TECHNOLOGY

(As Per PCI Regulations) Third Year B. Pharm. (Semester - VI)



Dr. Ramling G. Patrakar Associate Professor and Head Department of Pharmacognosy Shree Santkrupa College of Pharmacy, Ghogaon, Maharashtra.

Dr. Omprakash G. Bhusnure Professor and Head Deptt. of Pharmaceutical Quality Assurance Channabasweshwar Pharmacy College, Latur, Maharashtra.

Dr. Firoj A. Tamboli Head of Department Department of Pharmacognosy Bharati Vidyapeeth College of Pharmacy, Kolhapur, Maharashtra. Kolhapur, Maharashtra.

Dr. Harinath N. More Professor and Principal Bharati Vidyapeeth College of Pharmacy,



PRITAM PUBLICATIONS





Content page of Practical Handbook of Herbal Drug Technology

CONTENTS

Sr. No.	Sr. No. Title of the Experiment	
1	To carry out the qualitative phytochemical screening of crude drugs	1
2	To determine the alcohol content of Arishta and Asava	7
3	To isolate and evaluate the excipient of natural origin	10
4	To prepare and evaluate the Herbal Cold Cream	17
5	To prepare and evaluate the Herbal Shampoo	
6	To prepare and evaluate the Herbal Sunscreen Lotion	24
- 7	To prepare and evaluate the Herbal Cough Syrup	27
8	To prepare and evaluate the Herbal Mixture	30
9	To prepare and evaluate the Herbal Tablets	32
10	To determine the total alkaloids in a given crude drug	35
11	To determine the phenol content of a given crude drug	37
12	To determine the aldehyde content in lemon oil	
13	To study the monograph analysis of herbal drugs from Indian Pharmacopoeia	
14	To study the monograph analysis of herbal drugs from Siddha Pharmacopoeia	
1	References	60

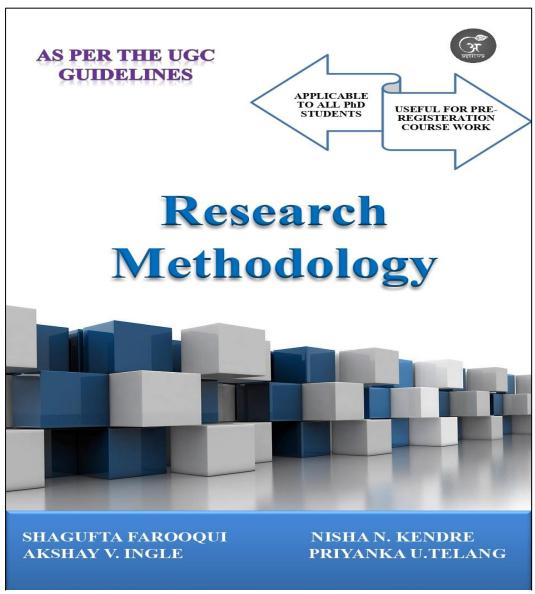


Ze

4. Ms. P. U. Telang

Title of the book: Research Methodology, Year of publication: 2022

Front page of Research Methodology





Back page of Research Methodology

Research Methodology

Research Methodology book consists of descriptive questions and answers sets from previous year question papers applicable for all PhD course work as per UGC guidelines.

Author and co author names are **Shagufta Farooqui**, **Nisha kendre**, **Akashy Ingle and Priyanka Telang Working** as a Assistant Professor and research scholar In Nanded Pharmacy College and School of pharmacy, SRTMU Nanded.





FOR PhD COURSE WORK STUDENTS

Authors

Shagufta. A. Farooqui

ASSISTANT PROFESSOR

NANDED PHARMACY COLLEGE, NANDED(MAHARASHTRA)

Nisha.N Kendre

ASSISTANT PROFESSOR

SCHOOL OF PHARMACY, SRTMU, NANDED (MAHARASHTRA)

Akshay V.Ingle

LECTURER

NANDED PHARMACY COLLEGE (POLY), NANDED (MAHARASHTRA)

Priyanka U. Telang

RESEARCH SCHOLAR

SCHOOL OF PHARMACY, SRTMU, NANDED (MAHARASHTRA)

4



Content page of Research Methodology

SYLLABUS

Research Methodology:

Objective:

- To enable to student to understand and work methods and concepts related Research.
- To enable the student to develop research proposal and to work with research problem.
- · To develop broad comprehension of research area.

Unit 1: Introduction

Meaning, Concept, nature steps types and characteristics of research. Scientific Inquiry Philosophical and Sociological foundations of research Interdisciplinary approach and its implications in various research area.

Unit 2: Methods of Research:

Qualitative and quantitative methods of research like Historical, case study, ethnography, expost facto, documentary and content analysis, survey (Normative, descriptive, evaluative etc.) field and laboratory experimental studies.

Characteristics of methods and their implications in research area.

Unit 3: Development of research proposal: Research proposal

and its elements

Formulation of research problem-criteria of sources and definition Development of objectives and characteristics of objectivies. Development hypotheses and applications.



Content page of Research Methodology

Unit 4: Methods of data collection:

Concept of sampling and other concepts related to sampling.

Probability and non-probability samples, their characteristics and implications. Tools of datacollections, their types, attributes and uses.

Redesigning, research tools-like questionnaire, opinnaere, observation, interviews, scales and testsetc.

Unit 5: Methods of data analysis:

Analysis of qualitative data based on various tools.

Analysis of quantative data and it presentation with tables, graphs etc.

Statistical tools and techniques of data analysis-measures of central tendency, dispersion. Decisionmaking with hypothesis testing through parametric and non parametric tests.

Validity and delimitations of research findings.

Unit 6: Report writing and evaluations:

Principles of report writing and guide lines according to style manuals.

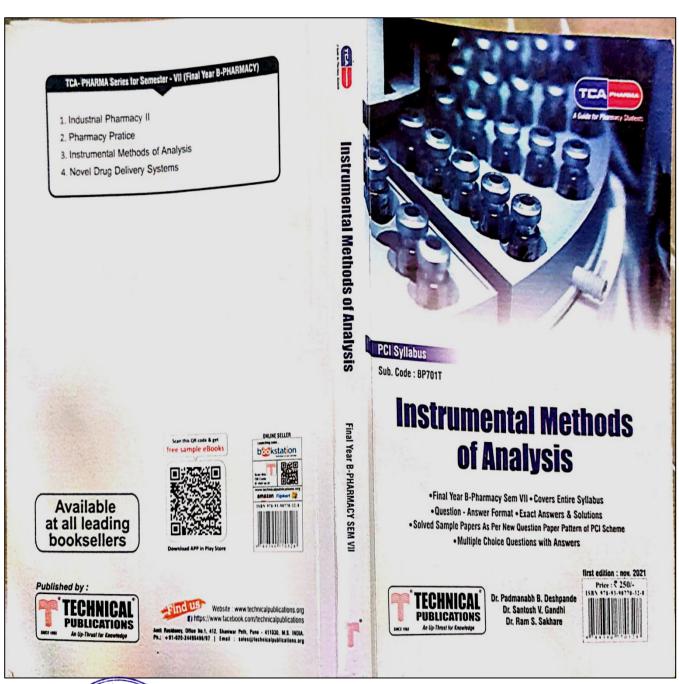
Writing and presentation of preliminary, main body and reference section of report. Evaluation of research report.



5. Dr R. S. Sakhare,

Title of the book: Instrumental Methods of Analysis, Year of publication: 2021

Front & Back page of Instrumental Methods of Analysis





Content page of Instrumental Methods of Analysis

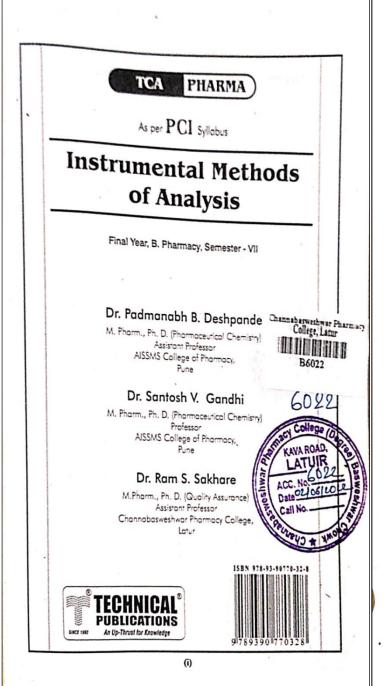


TABLE OF CONTENTS Unit - I Chapter 1 UV Visible Spectroscopy (1 - 1) to (1 - 48) Multiple Choice Questions with Answers......1 - 38 (2 - 1) to (2 - 21) Chapter 2 Fluorimetry Introduction to Fluorimetry.....2 - 1 Concept of Singlet, Doublet and Triplet Electronic States 2 - 2 Internal and External Conversions2-2 Factors Affecting Fluorescence......2-5 Quenching......2-7 2.5 2.6 Unit - II Chapter 3 IR Spectroscopy (3 - 1) to (3 - 35)



6.3		ations	
Mult	tiple Cho	ice Questions with Answers	
		Unit - III	
Cha	pter 7	Introduction to Chromatograp	ohy (7 - 1) to (7 - 1)
Com	monly U	sed Terms in Chromatography	7 -
Mult	tiple Choi	ce Questions with Answers	7-
Cha	pter 8	Adsorption and Partition Co Chromatography	lumn (8 - 1) to (8 - 1
8.1		ction	
8.2	Method	lology	8 -
8.3	Advant	ages and Disadvantages	8 -
8.4		ations	
Mult	iple Choi	ce Questions with Answers	8
Cha	pter 9	Thin Layer Chromatography	(9 - 1) to (9 - 1
9.1	Introdu	ction and Principle	9
9.2	Method	lology	9
9.3	R _f Valu	ies	9
9.4		ages and Disadvantages	
	Applica	ations	9-
9.5			

Mul	tiple Choice Questions with Answers	6 ~ 8
	Unit - III	
Cha	pter 7 Introduction to Chromatograp	ohy (7 - 1) to (7 - 17)
Com	monly Used Terms in Chromatography	7 - 1
Mult	iple Choice Questions with Answers	7 - 6
Cha	pter 8 Adsorption and Partition Co Chromatography	olumn (8 - 1) to (8 - 11)
8.1	Introduction	8 - 1
8.2	Methodology	8 - 2
8.3	Advantages and Disadvantages	
8.4	Applications	8 - 8
Mult	iple Choice Questions with Answers	
	pter 9 Thin Layer Chromatography	
9.1	Introduction and Principle	9 - 1
9.2	Methodology	
9.3	R _f Values	
00000	Advantages and Disadvantages	
9.4	Applications	
9.4 9.5		



(ix)

Chapter 10 Paper Chromatography (10 - 1) to (10 - 11)
10.1 Introduction
10.2 Methodology and Development Techniques
10.3 Advantages and Disadvantages
10.4 Applications
Multiple Choice Questions with Answers
Chapter 11 Electrophoresis (11 - 1) to (11 - 21)
11.1 Introduction
11.2 Factors Affecting Electrophoretic Mobility
11.3 Instrumentation and Types
11.4 Paper Electrophoresis
11.5 Gel Electrophoresis
11.6 Capillary Electrophoresis
11.7 Applications
Multiple Choice Questions with Answers
Unit - IV
Chapter 12 Gas Chromatography (12 - 1) to (12 - 30)
12.1 Introduction to Gas Chromatography, Advantages, Disadvantages and Applications
12.2 Instrumentation
12.3 Temperature Programming
TCA PHARMA

(x)
12.4 Derivatization
Multiple Choice Questions with Answers
Chapter 13 High Performance Liquid Chromatography (HPLC) (13 - 1) to (13 - 34)
13.1 Introduction to HPLC, Theory, Advantages and Disadvantages
13.2 Instrumentation
13.3 Applications
Multiple Choice Questions with Answers
Unit - V
Chapter 14 Ion Exchange Chromatography
(14 - 1) to (14 - 20)
(14 - 1) to (14 - 20)
14.1 Introduction

TCA PHARMA



		the state of the s
Multi	ple Choice Questions with Answers	15 - 8
A.	oter 16 Affinity Chromatography	
16.1	Introduction and Theory	
16.2	Instrumentation	16 - 3
16.3	Applications	16 6
Multi	ple Choice Questions with Answers.	16-7
	oter 17 High Performance Thin La Chromatography	Vor
17.1	Introduction	17-1
17.2	Principle	17-1
	Steps Involved in HPTLC	
	Applications	
Solv	ed University Question Papers	(S - 1) to (S - 3)

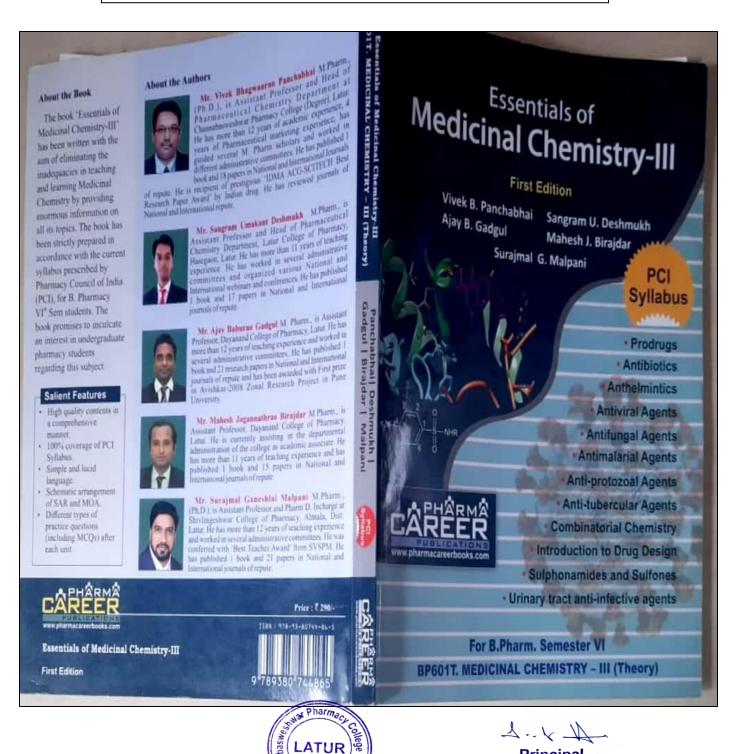
TCA PHARMA



6. Mr. V. B Panchabhai,

Title of the book: Essential of Medicinal chemistry-III, Year of publication: 2021

Front & Back page of Essential of Medicinal chemistry-I



Content page of Essential of Medicinal chemistry-III

Essentials of MEDICINAL CHEMISTRY - III

Mr. Vivek B. Panchabhai Mr. Sangram U. Deshmukh

(Degree), Latur (MS).

Mr. Ajay B. Gadgul

M.Pharm. Assistant Professor, Dayanand College of Pharmacy, Latur (MS).

M.Pharm. M.Pnarm., (Ph.D.)

Assistant Professor and Head,
Dept. of Pharmaceutical Chemistry,
Channabasweshwar Pharmacy College

M.Pnarm.

Assistant Professor and Head,
Dept. of Pharmaceutical Chemistry,
Latur College of Pharmacy, Hasegaon, Dist. Latur (MS).

Mr. Mahesh J. Birajdar

M.Pharm. Assistant Professor, Dayanand College of Pharmacy, Latur (MS).

Mr. Surajmal G. Malpani

M.Pharm., (Ph.D.) Assistant Professor and Pharm D. Incharge,

Shivlingeshwar College of Pharmacy, Almala, Dist: Latur (MS).



CONTENTS

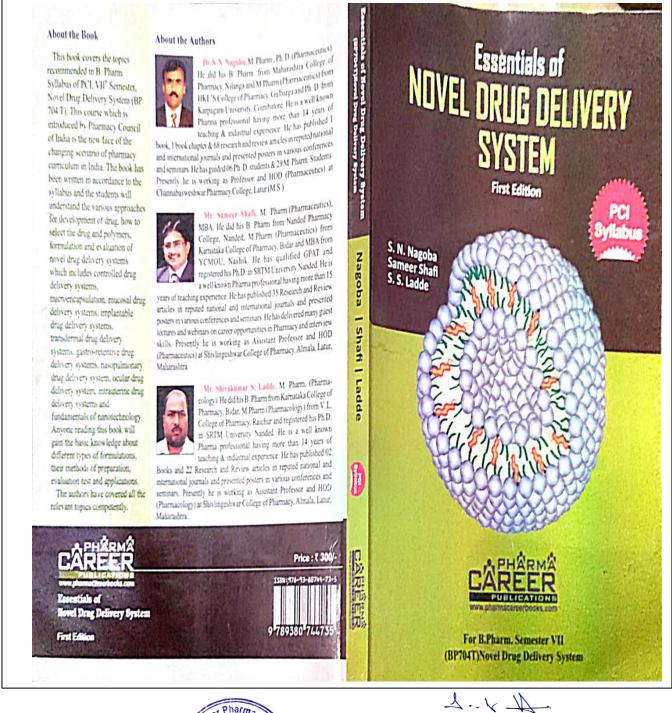
UI	111-1	
1.	Antibiotics A. β-lactam Antibiotics Penicillins Cephalosporins β-lactamase Inhibitors Monobactams B. Aminoglycoside Antibiotics C. Tetracycline Antibiotics	10
UN	NT-II	
 3. 4. 	Antibiotics D. Macrolide Antibiotics. E. Miscellaneous Antibiotics Prodrugs. Antimalarial Agents	. 26
UN	NIT - III	
5. 6. 7.	Anti-tubercular Agents Urinary Tract Anti-infective Agents Anti-viral Agents	. 86
UN	NIT - IV	
8. 9. 10. 11.	Antifungal Agents Anti-protozoal Agents Anthelmintics Sulphonamides and Sulphones	142
	NIT - V	
12. 13.	Introduction to Drug Design Combinatorial Chemistry Bibliography	213



7. Dr. S. N. Nagoba, Mr. S.S. Ladde,

Title of the book: Essential of Novel Drug Delivery System, Year of publication: 2021

Front & Back page of Essential of Essential of Novel Drug Delivery System





Content page of Essential of Novel Drug Delivery

Essentials of Novel Drug Delivery System

First Edition

Dr. Nagoba Shivappa N.

M.Pharm.,Ph.D.
Professor and Head,
Department of Pharmaceutics,
Channabasweshwar Pharmacy College,
Latur, Dist.Latur (MS)

Mr. Sameer Shafi

M.Pharm.
Assistant Professor and Head,
Department of Pharmaceutics,
Shivlingeshwar College of Pharmacy
Almala, Dist. Latur (MS)

Mr. Shivakumar S. Ladde

M. Pharm.
Assistant Professor and Head,
Department of Pharmacology,
Shivlingeshwar College of Pharmacy
Almala, Dist. Latur (MS)



Contents

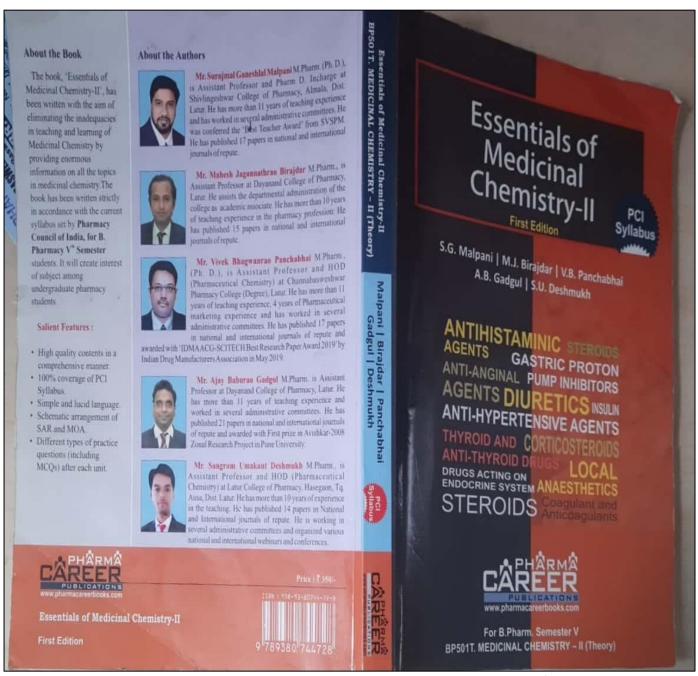
Chapter No.	Title of Chapter	Page No.
1	Controlled Drug Delivery System	1-19
2	Polymers	20-44
3	Microencapsulation	45-65
4	Mucosal Drug Delivery System	66-85
5	Implantable Drug Delivery System	86-102
6	Transdermal Drug Delivery System	103-126
7	Gastroretentive Drug Delivery System	127-146
8	Nasopulmonary Drug Delivery System	147-169
9	Targeted Drug Delivery System	170-212
10	Ocular Drug Delivery System	213-237
-11	Intrauterine Drug Delivery System	238- 249
Bibliograp	hy	250-253



8. Mr. V. B Panchabhai,

Title of the book: Essential of Medicinal chemistry-II, Year of publication: 2021

Front & Back page of Essential of Medicinal chemistry-II





Content page of Essential of Medicinal chemistry-II

ESSENTIALS OF MEDICINAL CHEMISTRY - II

Mr. Surajmal G. Malpani

M.Pharm., (Ph.D.)
Assistant Professor and
Pharm D. Incharge
Shivlingeshwar College of Pharmacy,
Almala, Dist: Latur (MS).

Mr. Mahesh J. Birajdar

M.Pharm. Assistant Professor, Dayanand College of Pharmacy, Latur (MS).

Mr. Vivek B. Panchabhai

M.Pharm., (Ph.D.) Assistant Professor and Head, Dept. of Pharmaceutical Chemistry, Channabasweshwar Pharmacy College (Degree), Latur (MS).

Mr. Ajay B. Gadgul

M.Pharm. Assistant Professor, Dayanand College of Pharmacy, Latur (MS).

Mr. Sangram U. Deshmukh

M.Pharm.
Assistant Professor and Head
Dept. of Pharmaceutical Chemistry
Latur College of Pharmacy, Hasegaon, Dist. Latur (MS).



		CONTENTS	
177	VIT -	TO BE CALLED AND A STATE OF THE	
U	1.	Antihistaminic Agents	
	2.	Gastric Proton Pump Inhibitors (PPIs)	
	3.	Antineoplastic Agents	
117	vIT -	п	
וט	4.	Anti-Anginal Agents	
	5.	Diuretics	
	6.	Antihypertensive Agents	
UI	NIT -	141	
	7.	Anti-Arrhythmic Drugs	
	8.	Anti-hyperlipidemic Agents	
	9.	Coagulants and Anticoagulants	
	10.	Drugs used in Congestive Heart Failure	
	-	w	
UI	VIT -	Drugs Acting on Endocrine System	
	11.	Drugs for Erectile Dysfunction	
	12.	Oral Contraceptives	
	13.	Oral Contraceptives	
	14.	Corticosteroids	
	15.	Thyroid and Anti-Thyroid Drugs	
i Ta	ATTER	V	
U	VIT -	Autoliabetic Agents	
	10000	A Description of the Contract	
	17.	Bibliography	
	*	Bibliography	



9. Dr. R. S. Sakhare,

Title of the book: Medicinal chemistry-I, Year of publication: 2019

Front & Back page of Medicinal chemistry-I



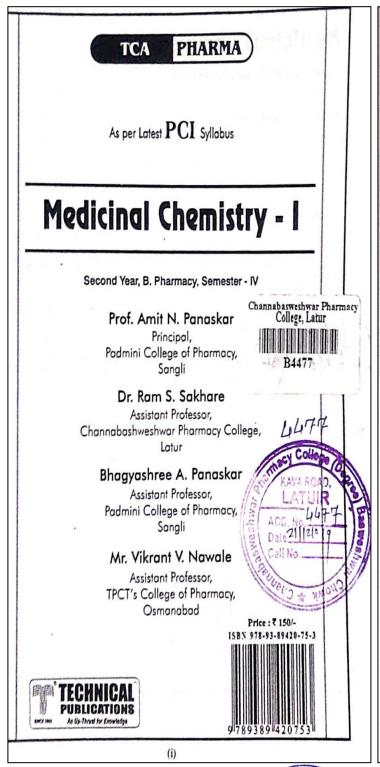


TABLE OF CONTENTS

Unit - I

	Cha	apter - 1	Basic Concepts of Medicin and Drug Metabolism	nal Chemistry (1 - 1) to (1 - 40
	1.1	Introduc	ction to Medicinal Chemistry	1-
	1.2		and Development of Medicinal Ch	
	1.3	Physico Action	chemical Properties in Relation to I	Biological
	1.4		etabolism	
		1.4.1 D	rug Metabolism Principles Phase - I	and Phase II 1 - 19
		1.4.2 Fa	actors Affecting Drug Metabolism	1 - 32
,		Multiple	Choice Questions with Answers	1 - 35

Unit - II

Cha	pter - 2	Adrenergic and Adrenerg Antagonists	ic (2 - 1) to (2 - 41
2.1	Drugs A	cting on Autonomic Nervous Syst	tem2 - 1
2.2	Adrenerg Adrenerg	ric Drugs : Sympathomimetic,	2-4
2.3	Sympath	omimetic Agents	2 - 1
2.4	Adrenerg	cic Antagonist/Sympatholytics	2-2
	Multiple	Choice Questions with Answers.	2-3
			Continue of Lines



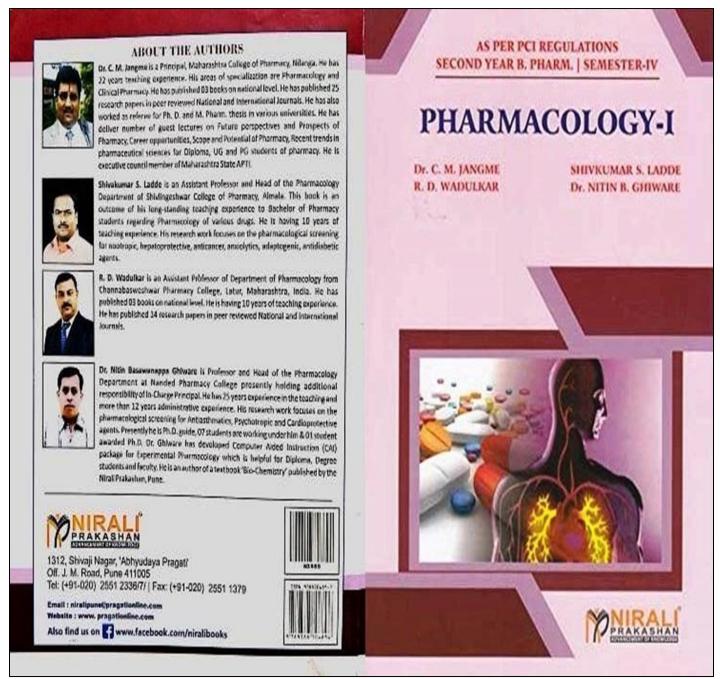
		(viii)	
		Unit - III	
Ch	apter - 3	Cholinergic and Cholinergi	(0 .) ()
3.1 3.2 3.3	Parasym	pathomimetic Agents gic Blocking Agents Choice Questions with Answers	3 - 25
V.		Unit - IV	
Ch	apter - 4	Drugs Acting on Central Nervous System I	(4 - 1) to (4 - 62
4.1	Sedative	1 TT ation	4 - 1
4.2			
4.3	Anticonv	vulsants	4-5
	Multiple		
		Unit - V	3 3 4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Cha	apter - 5	Drugs Acting on Central Nervous System II	(5 - 1) to (5 - 5
5.1	General A	Anaesthetic	5-
5.2	Narcotic	Analgesics and Antagonists	5 -
	5 2 1 Naro	cotic Analgesics	
	5.2.2 Naro	cotic Antagonists	5 - 2
5.3	Non-Naro Anti-Infla	cotic Analgesics or Non-Steroidal ammatory Drugs (NSAID's)	5-
	Multiple (Choice Questions with Answers	5-
Solv		rsity Question Papers	(S - 1) to (S -
			7



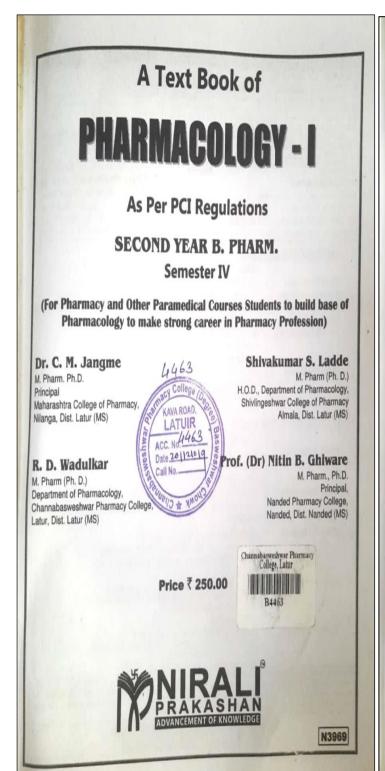
10. Mr. S. S. Ladde, Mr. R.D. Wadulkar,

Title of the book: Pharmacology-I, Year of publication: 2019

Front & Back page of Pharmacology-I







	tents	
	Unit - I	
Chapte	T 1 : Introduction to Dt	
1.1	r 1 : Introduction to Pharmacology	1.1 - 1.18
1.2	Historical Landmarks in Pharmacology	1.1
1.3	scope of Pharmacology	1.2
1.4	Branches and Divisions of Pharmacology	1.4
1.5	Sources of Druns	1.5
1.7	Routes of Drug Administration Agonists	1.9
1.8	Antagonists	1.13
1.9	Spare Recentors (Passage Passage)	1.14
1.10	Addiction	1.14
1.11	Tolerance	1.16
1.12	Dependence Tachyphylaxis	1.17
1.14	Idiosyncrasy	1.17
1.15	Allergy	1.17
	Questions	1.18
hapte	r 2 : Pharmacokinetics	1.18
2.1	Introduction	2.1 - 2.38
2.2	Biological Membrane	2.1 2.2
2.3	Mechanism of Drug Absorption 2.3.1 Simple Diffusion	2.2
	2.3.1 Simple Diffusion 2.3.2 Filtration	2.3
	2.3.3 Bulk Flow	2.5
2.4	Carrier Mediated Transport	2.5
	2.4.1 Active Membrane Transport	2.6 2.6
	2.4.2 Facilitated Transport	2.6
2.5	2.4.3 Endocytosis	2.6
2.6	Factors Affecting Absorption of Drugs Distribution of Drugs	2.7
	2.6.1 Factors Affecting Distribution	2.11
	2.6.2 Factors Influencing the Volume of Distribution	2.14 2.19
2.7	Metabolism of Drugs	2.20
	2.7.1 Factors Affecting Biotransformation 2.7.2 Prodrugs	2.26
2.8	2.7.2 Prodrugs Excretion of Drug	2.30
2.9	Kinetic Elimination of Drug	2.31
-	2.9.1 Factors affecting Elimination	2.33
	Questions	2.36 2.38
	Unit - II	2.00
hapter	3 : Pharmacodynamics	24 220
3.1	Introduction	3.1 - 3.30
3.2	Principles and Mechanisms of Drug Action	3.1
0.1	3.2.1 Principles of Drug Action	3.1
	3.2.2 Mechanisms of Drug Action	3.1
3.2	Receptors	3.2



	3.3	Receptor Regulation	3.8
	3.4		3.10
	3.5		3.13
		3.5.1 Signal Transducing Receptors are of Three General Classes	3.14
	3.6	Types of Receptors	3.16
		3.6.1 Ligand Gated Ion Channel Receptors	3.16
		3.6.2 G-protein Coupled Receptors	3.17
		3.6.3 Kinase Linked or Enzymatic Receptors	3.19
	22	3.6.4 Enzyme-linked Receptors	3.20 3.23
		Dose Response Relationship	3.24
		Therapeutic Index	3.24
		Combined Effects of Drugs	3.26
	3.10	Factors Modifying Action of Drugs	3.30
		Questions	4.1 - 4.4
1	AND DESCRIPTION OF THE PARTY OF	4 : Adverse Drug Reactions	4.1
		Introduction	4.1
		Types of Adverse Drug Reactions	4.3
		ADRs: Predisposing Factors	4.4
		Questions	5.1 - 5.6
1	ALL DESCRIPTION OF THE PARTY OF	5 : Drug Interactions	5.1
		Introduction	5.2
		Drug-Drug Interaction Classification Pharmaceutical Interactions	5.2
		Pharmacological Interactions	5.2
	5.4	Pharmacokinetic Interactions	5.3
	5.6		5.5
	3.0	Questions	5.6
	Chanter	6 : Drug Discovery and Clinical Evaluation of New Dru	gs
1	Gnapter	U, bing biocott,	6.1 - 6.8
		Drug Discovery and Clinical Evaluation of New Drugs	6.1
	6.1	Basic Terminologies for Pharmacovigilence	6.5
	6.2	Questions	6.8
		Unit - III	
	Chapter	7: Organization and Function of Autonomic Nervous	System
	Onapro.		7.1 - 7.6
	7.1	Introduction	7.1
	7.2	Parasympathetic Nervous System	7.6
	1.2	Question	7.6
		8 : Neurohumoral Transmission, Co-transmission	
	chapter	and Classification of Neurotransmitters	8.1 - 8.8
			8.1
	3200	Introduction	8.3
	10707	Physiological Steps involved in Neurohumoral Transmission Classification of Neurotransmitter	8.6
	1000000	Questions of Neurotransmitter	8.8
	1	Questions	100

Chapter 9 : Parasympathomimetics	9.1 - 9.11
9.1 Introduction	9.1
9.2 Acetylcholine Receptors	9.2
9.3 Parasympathomimetics	9.6
9.3.1 Choline Esters	9.6
9.3.2 Anticholinesterase Agents	9.10
Questions	9.12
Chapter 10 : Parasympatholytics	10.1 - 10.6
10.1 Introduction	10.1
10.2 Classification	10.1
10.3 Sources and Chemistry of Anticholinergic Drugs	10.2
Questions	10.6
Chapter 11 : Sympathomimetics Agents	11.1 - 11.14
11.1 Sympathetic Nervous System	11.1
11.2 Adrenergic Receptor	11.5
11.2.1 Classification of Adrenergic Agents	11,7
11.2.2 Pharmacological Action	11.8
11.3 Non-Catecholamines	11.12
Goesilons	11.14
Chapter 12 : Sympatholytics Agents	12.1 - 12.10
12.1 Introduction	12.1
12.2 α-receptor Antagonist	12.2
12.3 β-receptor antagonist: (β-blocker)	12.5
12.4 α and β-non-selective Antagonist 12.5 Centrally Acting Sympatholytics	12.8
12.6 Ganglion Blockers	12.9 12.10
12.7 Neuronal Blockers	12.10
Questions	12.10
Chapter 13: Neuromuscular Blocking Agents and	12.10
Skeletal Muscle Relaxants	40.4 40.4
	13.1 - 13.4
13.1 Introduction 13.2 Neuromuscular Blocking Agents	13.1
13.3 Depolarising Blocker	13.3
13.4 Centrally Acting Muscle Relaxants	13.4
Questions	13.4
Chapter 14 : Local Anesthetic Agents	14.1 - 14.10
14.1 Introduction	14.1
14.2 Clinical Uses and Technique of Administration	14.1
14.3 Pharmacokinetics of Local Anaesthetics	14.3
14.4 The Importance of the pKa of a Local Anaesthetic Drug	14.4
14.5 The Mechanism of Action of Local Anaesthetics	14.5
Questions	14.10
Chapter 15: Drugs used in Myasthenia Gravis and Glaucom	na 15.1 - 15.4
15.1 Myasthenia Gravis and Glaucoma	15.1
15.2 Treatment	15.2
15.3 Glaucoma	15.2 15.3
15.4 Types of Glaucoma	15.4
Questions	10.4



	Unit - IV	
Chapter	16 : Neurohumoral Transmission in the CNS	16.1 - 16.10
	The Basis of CNS Pharmacology	16.1
	16.1.1 Glutamatergic Pathways	16.3
	16.1.2 GABAergic Pathways	16.3
	16.1.3 Glycine	16.4
	16.1.4 Dopaminergic Pathways	16.4
	16.1.5 Cholinergic Pathways	16.5
	16.1.6 Serotonergic Pathways	16.
	16.1.7 Noradrenergic Pathways	16.6
16.2	Neurohumoral Transmission in the CNS	16.7
16.3	Neurotransmitters	16.8
•	Questions	16.10
Chapter	17 : General Anesthetics and Pre-anesthetics	17.1 - 17.14
	General Anesthesia	17.1
	17.1.1 Stages of General Anesthesia	17.3
	17.1.2 Phases of Anesthesia	17.3
17.2	Classification of General Anesthetics	17.4
17.3	Mechanism of Action of General Anesthetics	17.4
17.4	Individual Anaesthetic Agents	17.5
17.5	Mode of Delivery or Administration of General Anaesthetics	17.11
17.6	Preanaesthetic Medication or Adjuvant for General Anaesthetics	17.12
	Questions	17.14
Chapter	18 : Sedatives and Hypnotics	18.1 - 18.8
18.1	Introduction	18.1
18.2	Sleep Cycle	18.1
18.3	Classification of Hypnotics and Sedatives	18.3
18.4	Barbiturates	18.4
18.5	Barbiturate Intoxication and Overdose	18.7
	Questions	18.8
Chapter	19 : Centrally Acting Muscle Relaxants	19.1 - 19.2
19.1	Introduction	19.1
19.2	Pharmacology of Individual Drugs	19.1
	Questions	19.2
Chapter	20 : Anti-epileptics Drugs	20.1 - 20.10
20.1	Epileptic Seizures	20.1
	Antiepileptic Drugs	20.3
	Questions	20.10
Chapter	21 : Alcohols and Disulfiram	21.1 - 21.8
	Ethyl Alcohol (Ethanol)	21.1
	21.1.1 Mechanism of Action	21.2
	21.1.2 Pharmacological Action	21.2
21.2	Methanol	21.7
21.3	Disulfiram	21.7
	Questions	21.8

	(II. 11. 11)	
	Unit - V	
Chapte	r 22 : Antipsychotics Drugs	22.1 - 22.8
	Introduction	22.1
22.2	Dopamine Pathways	22.1
22.3	Antipsychotic Drugs	22.3
	Dopamine Receptors	22.3
22.5	Pharmacology of Chloropromazine	22.5
•	Questions	22.8
Chapte	r 23 : Antidepressants Drugs	23.1 - 23.6
23.1	Introduction	23.1
23.2	Antidepressants Drugs	23.2
	23.2.1 Classification	23.2
	23.2.2 Monoamine Oxidase Inhibitors	23.2
	23.2.3 Tricyclic Antidepressants (TCAS)	23.4
•	Questions	23.6
Chapte	24 : Anti-anxiety Agents Drugs	24.1 - 24.4
24.1	Introduction	24.1
	24.1.1 Molecular Mechanism Involved in Anxiety	24.1
24.2	Antianxiety Agents	24.2
	24.2.1 Benzodiazepines	24.2
	24.2.2 Buspirone	24.4
	24.2.3 Hydroxyzine	24.4
	Questions	24.4
Chapter	25 : Anti-manics Drugs	25.1 - 25.4
9.4.1.1	Introduction	25.1
25.2	Antimanic Drugs	25.2
	25.2.1 Lithium Carbonate	25.2
	Questions	25.4
Chapter	26 : Hallucinogens	26.1 - 26.4
	Introduction	26.1
26.2	Effects of Hallucinogens	26.2
	Questions	26.4
Chapter	27: Drugs used in Parkinson's Disease and	
	Alzheimer's Disease	27.1 - 27.8
27.1	Parkinson's Disease	27.1
	27.1.1 Symptoms of Parkinson's Disease	27.1
	27.1.2 Causes of Parkinson's Disease	27.2
	27.1.3 Molecular Mechanism of Parkinson's Disease	27.2
27.2	Antiparkinsonian Agents	27.3
	27.2.1 Pharmacology of important Antiparkinsonian Agents	27.4
27.3	Alzheimer's Disease	27.6
	27.3.1 Drug Therapy	27.8
	27.3.2 Mechanism of Antialzheimer Agents	27.8
	27.3.3 Pharmacology of Antialzheimer Agents	27.8



Chapter	28 : CNS Stimulants and Nootropics	28.1 - 28.0
	CNS Stimulants	28.1
	28.1.1 Classification	28.1
	28.1.2 Pharmacological Action	28.3
28.2	Nootropics	28.4
-	28.2.1 Nootropics that Improve Memory	28.5
	Questions	28.0
Chanter	29 : Opioid Analgesics and Antagonists	29.1 - 29.1
	Introduction	29.
	Opioids	29.
	Opioid Receptors	29.
27,0	29.3.1 Mechanism of Action of Opioid Drugs	29.3
	29.3.2 Pharmacology of Opioid Drugs	29.
29.4	Narcotic Antagonist	29.
	Questions	29.
Chanto	30 : Drug Addiction, Drug Abuse, Tolerance an	d Dependence
unapte	00.010	30.1 - 30.
00.1	D Addition	30.
30.1	Drug Addiction 30.1.1 Signs of Drug Addiction	30.
	30.1.2 Treatment	30.
20.0	Drug Abuse	30.
	Drug Tolerance	30.
	Drug Dependence	30.
30.4	Questions	30.
	200110110	
. Def	erences	R.1 - R.
· Kei	***	



11.Dr. S.N. Nagoba, Mr. Shaikh N.S., Mr. Attar M.S, Title of the book: Industrial Pharmacy-I, Year of publication: 2019

Front & Back page of Industrial Pharmacy-I







Principal
Channabasweshwar Pharmacy
College (Degree), Latur

Content page of Industrial Pharmacy-I

(Fee Pharmacy and Other Panamedical Courses Students to halld base of Pharmaceutics to make strong career in Pharmacy Profession) (As per PCI Syllabus)

A Text Book of INDUSTRIAL PHARMACY - I



: Authors:

Dr. Nagoba S. N. M.Pharm.Ph.D.

Associate Professor and Head, Department of Pharmaceutics, Channabasweshwar Pharmacy College, Later, Dist, Later (MS)

Mr. Shnikh N. S.

M.Pharm.(Ph.D.)
Assistant Professor
Department of Pharmaceutics,
Channabasweshwar Pharmacy College,
Latur, Dist. Latur (MS)

Dr. Gattani S. G.

M. Pharm. Ph.D.
Professor and Head,
Department of Pharmaceutics,
School of Pharmacy S.R.T.M.University,
Nanded, Dist. Nanded (MS)

Mr. Attar M. S.

M.Pharm Assistant Professor Department of Pharmaceutical Chemistry, Channahasweshwar Pharmacy College, Latur, Dist. Latur (MS)



Aruna Prakashan, Latur

Index

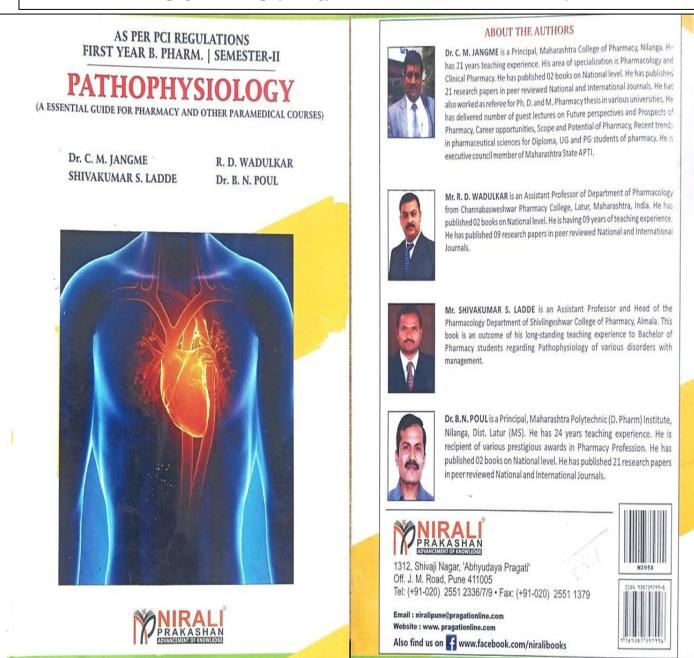
1.	Preformulation Studies	
2.	Tablets	11 - 25
3.	Liquid orals	26 - 61
4.	Capsules	62 - 79
5.	Pellets	80 - 108
6.	Parenteral Products	109 - 11
7.	Ophthalmic Preparations	120 - 15
8.	Cosmetics	156 - 16
9.	Pharmaceutical Aerosols	168 - 18
10.	Packaging Materials Science	



12. Mr. S. S. Ladde, Mr. R. D. Wadulkar,

Title of the book: Pathophysiology (An Essential Guide for Pharmacy and Other Paramedical Courses), Year of publication: 2018

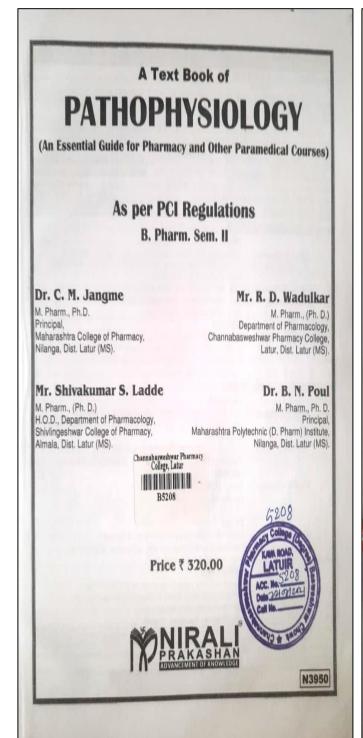
Front & Back page of Pathophysiology (An Essential Guide for Pharmacy and Other

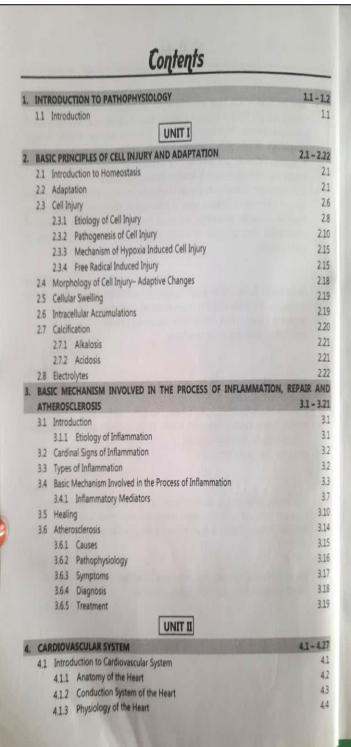




Principal
Channabasweshwar Pharmacy
College (Degree), Latur

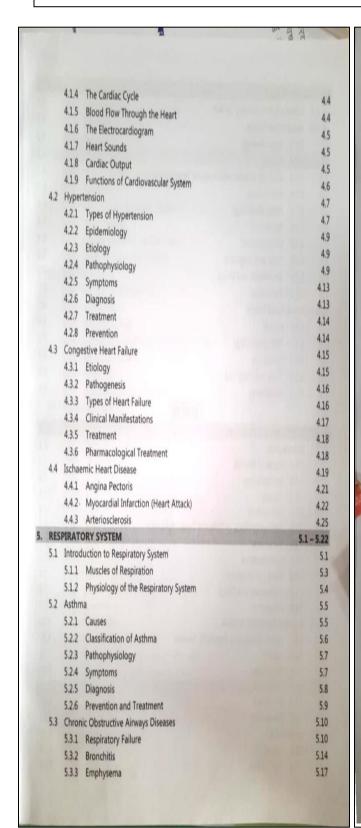
Content page of Pathophysiology (An Essential Guide for Pharmacy and Other







Content page of Pathophysiology (An Essential Guide for Pharmacy and Other Paramedical



RE	VAL SYSTEM	6.1 - 6.11
	Introduction to Urinary System	6.1
6.2	Acute Renal Failure	6.2
	6.2.1 Epidemiology	6.2
	6.2.2 Causes	6.2
	6.2.3 Etiologic Mechanisms in Acute Renal Failure	6.3
	6.2.4 Risk Factors	6.3
	6.2.5 Pathophysiology	6.4
	6.2.6 Symptoms	6.4
	6.2.7 Complications	6.4
	6.2.8 Tests and Diagnosis	6.5
	6.2.9 Treatments and Drugs	6.5
	6.2.10 Prevention	6.5
6.3	Chronic Renal Failure	6.6
	6.3.1 Causes	6.6
	6.3.2 Pathophysiology	6.6
	6.3.3 Symptoms	6.7
	6.3.4 Tests and Diagnosis	6.8
	6.3.5 Treatments	6.8
	UNIT III	
HA	EMATOLOGICAL DISEASES	7.1 - 7.16
	Introduction	7.1
	7.1.1 Types of Anemia	7.1
	7.1.2 Epidemiology	7.1
	7.1.3 Causes	7.1
	7.1.4 Risk Factors	7.4
	7.1.5 Pathophysiology of Different Types of Anemia	7.4
	7.1.6 Symptoms	7.7
	7.1.7 Complications	7.7
	7.1.8 Tests and Diagnosis	7.7
	7.1.9 Treatments and Drugs	7.8
	7.1.9 Prevention	7.9
7.2	Acquired Hemolytic Anemia	7.10
	7.2.1 Types of Acquired Hemolytic Anemia	7.10
	7.2.2 Causes	7.11
	7.2.3 Symptoms	7.11
	7.2.4 Diagnosis	7.12
	7.2.5 Treatment	7.12
	7.2.6 Prevention	7.12
7.3	Hemophilia	7.13
	7.3.1 Causes	7.14
	7.3.2 Risk Factors	7.15



Content page of Pathophysiology (An Essential Guide for Pharmacy and Other Paramedical Courses)

7.3.3 Symptoms of Hemophilia			
7.3.4 Complications	7.15	9.2.4 Symptoms	
7.3.5 Diagnosis	7.15	9.2.5 Tests and Diagnosis	
7.3.6 Treatment	7.16		
ENDOCRINE SYSTEM	7.16	9.2.6 Treatments and Drugs 9.3 Parkinson's disease	
8.1 Introduction to Endocrine System	8.1 - 8.24	9.3.1 Causes	
8.1.1 Functions	8.1	9.3.2 Risk Factors	
8.1.2 Glands of the Endocrine System	8.1		
8.1.3 Hypothalamus	8.2	, , , , , , , , , , , , , , , , , , , ,	
8.1.4 Causes of Endocrine Disorders	8.2	9.3.4 Symptoms	
8.1.5 Types of Endocrine Disorders	8.3	9.3.5 Tests and Diagnosis	
8.2 Diabetes Mellitus	8.4	9.3.6 Treatment and Drugs	
8.2.1 Multitude of Mechanisms	8.5	9.3.7 Prevention	
8.2.2 Classification	8.5	9.4 Stroke	
8.2.3 Pathophysiology	8.5	9.4.1 Types of Stroke	
, , , , , , , , , , , , , , , , , , , ,	8.7	9.4.2 Causes	
8.2.4 Clinical Manifestations of Diabetes Mellitus 8.2.5 Effects of Diabetes	8.7	9.4.3 Risk Factors	
	8.8	9.4.4 Epidemiology	
	8.8	9.4.5 Pathophysiology	
J	8.9	9.4.6 Symptoms	
8.3 Thyroid Diseases	8.10	9.4.7 Facts on Stroke	
8.3.1 Hypothyroidism	8.11	9.4.8 Diagnosis	
8.3.2 Hyperthyroidism	8.12	9.4.9 Prevention	
8.3.3 Thyroiditis	8.12	9.4.10 Treatment	
8.3.4 Treatment	8.13	9.5 Depression	
8.4 Graves' Disease	8.13	9.5.1 Epidemiology	
8.4.1 Treatment	8.14	9.5.2 Causes	
8.4.2 Thyroid Nodules	8.14	9.5.3 Pathophysiology	
8.4.3 Thyroid Cancer	8.14	9.5.4 Symptoms	
8.5 Goiter	8.16	9.5.5 Complications	
8.5.1 Types of Goiters	8.16	9.5.6 Tests and Diagnosis	
8.5.2 Causes	8.17	9.5.7 Treatments and Drugs	
8.5.3 Symptoms	8.17	9.5.8 Prevention	
8.5.4 Treatments	8.17	9.6 Schizophrenia	
8.6 Disorders of Sex Hormones	8.17	9.6.1 Epidemiology	
8.6.1 Disorders of Sex Hormones In Females	8.17	9.6.2 Types of Schizophrenia	
8.6.2 Disorders of Sex Hormones in Males	8.22	9.6.3 Causes	
NERVOUS SYSTEM	9.1 - 9.34	9.6.4 Risk Factors	
9.1 Introduction to Nervous System	9.1	9.6.5 Symptoms	
9.2 Epilepsy	9.3	9.6.6 Tests and Diagnosis	
9.2.1 Epidemiology	9.4	9.6.7 Treatment	
9.2.2 Causes	9.5	9.6.8 Complications	
9.2.3 Pathophysiology	9.6	9.6.9 Prevention	



Content page of Pathophysiology (An Essential Guide for Pharmacy and Other Paramedical Courses)

9.7 Alzh	eimer's Disease	9.30
9.7.1	Causes	9.30
9.7.2	Types of AD	9.31
9.7.3		9.31
9.7.4		9.32
9.7.5	Diagnosis	9.33
9.7.6	Treatment	9.34
9.7.7	Prevention	9.34
O. GASTROI	NTESTINAL SYSTEM	10.1 - 10.12
10.1 Intro	duction to Gastrointestinal Tract	10.1
10.2 Pept	ic Ulcer	10.4
10.2.	1 Epidemiology	10.7
10.2.	2 Pathophysiology	10.7
10.2.	3 Clinical Manifestations	10.9
10.2.	4 Complications	10.9
10.2.	5 Tests and Diagnosis	10.9
10.2.	6 Treatment	10.11
10.2.	7 Prevention	10.12
	UNIT IV	
1. INFLAMN	NATORY BOWEL AND LIVER DISEASES	11.1 - 11.25
11.1 Inflar	nmatory Bowel Disease (IBD)	11.1
11.1.	1 Introduction	11.1
11.1.	2 Causes	11.1
11.1.	B Pathophysiology of Inflammatory Bowel Disease	11.2
11.1.	4 Sign and Symptoms	11.3
11.1.	5 Diagnosis	11.3
11.1.	5 Treatment	11.4
11.2 Jauno	lice	11.6
	L Causes of Jaundice	11.6
11.2.	2 Types of Jaundice	11.7

11.2.	B Pathophysiology	11.8
11.2. 11.2.	B Pathophysiology	11.8
11.2.3 11.2.4	Pathophysiology Symptoms	11.8 11.8
11.2.5 11.2.4 11.2.5	Pathophysiology Symptoms Diagnosis	11.8 11.8 11.8
11.2.5 11.2.5 11.2.5 11.2.5 11.2.6	Pathophysiology Symptoms Diagnosis Treatment	11.8 11.8 11.8 11.9
11.2.3 11.2.3 11.2.5 11.2.5 11.2.6 11.2.7	Pathophysiology Symptoms Diagnosis Treatment Complication	11.8 11.8 11.8 11.9 11.9
11.2.3 11.2.4 11.2.5 11.2.6 11.2.7 11.3 Hepa	Pathophysiology Symptoms Diagnosis Treatment Complication	11.8 11.8 11.8 11.9
11.2.5 11.2.6 11.2.6 11.2.6 11.2.7 11.3 Hepa	Pathophysiology Symptoms Diagnosis Treatment Complication titis Etiology	11.8 11.8 11.8 11.9 11.9 11.10
11.2.5 11.2.5 11.2.5 11.2.5 11.2.7 11.3 Hepa 11.3.1 11.3.2	Pathophysiology Symptoms Diagnosis Treatment Complication Litis Etiology Pathophysiology of Hepatitis	11.8 11.8 11.9 11.9 11.10 11.10
11.2. 11.2. 11.2. 11.2. 11.2. 11.3. Hepa 11.3.1 11.3.2.	Pathophysiology Symptoms Diagnosis Treatment Complication titis Etiology Pathophysiology of Hepatitis Symptoms	11.8 11.8 11.9 11.9 11.10 11.10 11.11 11.11
11.2. 11.2. 11.2. 11.2. 11.2. 11.3. Hepa 11.3. 11.3.2 11.3.3	Pathophysiology Symptoms Diagnosis Treatment Complication Litis Etiology Pathophysiology of Hepatitis	11.8 11.8 11.9 11.9 11.10 11.10

11.4 Alcoholic Liver Disease	11.20
11.4.1 Epidemiology	11.21
11.4.2 Causes	11.21
11.4.3 Pathophysiology	11.21
11.4.5 Fathophysiology	11.22
	11.23
11.4.5 Complications	11.23
11.4.6 Diagnosis	11.24
11.4.7 Treatment	12.1 - 12.20
12. DISEASES OF BONES AND JOINTS	12.1
12.1 Introduction to Human Skeleton	12.1
12.1.1 Structure and Function of Joints	12.2
12.1.2 Functions of the Skeleton	12.3
12.1.3 Bone Structure	12.3
12.2 Rheumatoid Arthritis	
12.2.1 Juvenile Rheumatoid Arthritis (JRA)	12.4
12.2.2 Epidemiology	12.4
12.2.3 Etiology	12.5
12.2.4 Pathophysiology	12.6
12.25 Complications	12.7
12.2.6 Tests and Diagnosis	12.7
12.2.7 Treatments and Drugs	12.8
12.3 Osteoarthritis	12.10
12.3.1 Epidemiology	12.10
12.3.2 Causes	12.10
12.3.3 Pathophysiology	12.11
12.3.4 Symptoms	12.12
12.3.5 Tests and Diagnosis	12.12
12.3.6 Treatments and Drugs	12.13
12.4 Osteoporosis	12.13
12.4.1 Causes	12.14
12.4.2 Symptoms	12.15
12.4.3 Diagnosis	12.15
12.4.4 Treatment	12.15
12.4.5 Medications	12.16
12.5 Gout	12.16
12.5.1 Epidemiology	12.16
12.5.2 Causes	12.17
12.5.3 Pathophysiology	12.17
12.5.4 Clinical Manifestations	12.18
12.5.5 Complications	12.18
12.5.6 Symptoms	12.18
12.5.7 Diagnosis	12.18
12.5.8 Treatment	12.19
12.5.9 Prevention	12.19



Content page of Pathophysiology (An Essential Guide for Pharmacy and Other Paramedical Courses)

3. PRINCIPLES OF CANCER	122 4444
13.1 Introduction	13.1 - 13.14
13.1.1 Epidemiology	13.1 13.1
13.2 Classification of Cancer	13.2
13.2.1 Types of Staging	13.3
13.2.2 Classification by Stage	13.4
13.2.3 Neoplastic Cell Characteristics	13.6
13.2.4 The Genesis of a Cancer Cell	13.6
13.3 Etiology	13.7
13.4 Pathophysiology	13.9
13.4.1 Symptoms	13.11
13.4.2 Cancer Diagnosis	13.12
13.4.3 Treatment	13.13
13.4.4 Prevention	13.14
UNIT V	
4. INFECTIOUS DISEASES	14.1 - 14.22
14.1 Meningitis	14.1
14.1.1 Types of Meningitis	14.1
14.1.2 Clinical Features and Pathophysiology	14.3
14.1.3 Complications	14.3
14.1.4 Symptoms	14.4
14.1.5 Risk Factors	14.4
14.1.6 Diagnosis	14.4
14.1.7 Treatment	14.5
14.1.8 Prevention	14.5
14.2 Typhoid Fever	14.5
14.2.1 Pathophysiology	14.5
14.2.2 Epidemiology	14.7
14.2.3 Symptoms and Complications	14.7
14.2.4 Diagnosis	14.7
14.2.5 Treatment	14.8
14.2.6 Complications	14.8
14.2.7 Prevention	14.9
14.3 Leprosy	14.9
14.3.1 Pathogenesis of Leprosy	14.10
14.3.2 Epidemiology	14.11
14.3.3 Signs and Symptoms	14.11
14.3.4 Diagnosis	14.12
14.3.5 Treatment	14.12
14.3.6 Complications	14.12
14.3.7 Prevention	14.13

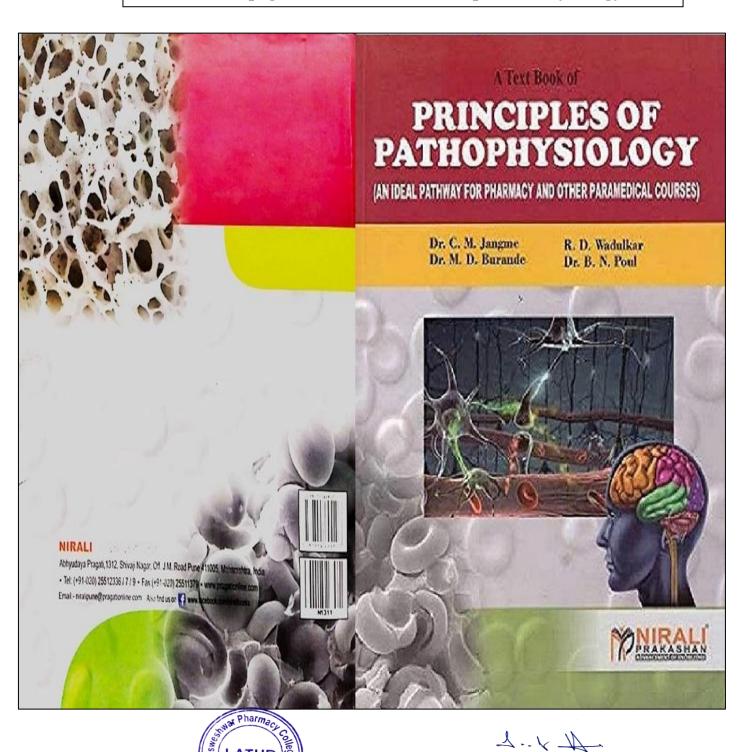
15.2.5 Treatment 15.2.6 Prevention	44
	15
15.2.4 Diagnosis	15
15.2.3 Causes	15
15.2.2 Pathophysiology	15
15.2.1 Stages of Disease	15
15.2 Syphilis	15
15.1.4 Diagnosis 15.1.5 Prevention	15
15.1.3 Modes of Transmission	15
15.1.2 Pathophysiology	15
15.1.1 HIV Structure	15
15.1 Acquired Immunodeficiency Syndrome	15
IS. SEXUALLY TRANSMITTED DISEASES	15.1 - 15.1
14.5.7 Prevention	14.2 15.1 – 15.1
14.5.6 Treatments and Drugs	14.2
14.5.5 Tests and Diagnosis	14.2
14.5.4 Symptoms	14.2
14.5.3 Risk Factors for UTIs	14.1
14.5.2 Causes of UTIs	14.1
14.5.1 Types	14.1
14.5 Urinary Tract Infection	14.1
14.4.9 Prevention	14.1
14.4.8 Clinical Features	14.1
14.4.7 Treatment	14.1
14.4.6 Diagnosis	14.1
14.4.5 Clinical Manifestations	14.1
14.4.4 Pathophysiology	14.1
14.4.3 Risk Factor	14.1
14.4.2 Etiology	14.1
14.4.1 Epideililology	14.1
14.4.1 Epidemiology	14.1



13.Mr. Wadulkar R. D.,

Title of the book: A text book of Principle of Pathysiology, Year of publication: 2018

Front & Back page of a text book of Principle of Pathysiology



Principal
Channabasweshwar Pharmacy
College (Degree), Latur

A Text Book of

Principles of Pathophysiology

(An Ideal Pathway for Pharmacy and Other Paramedical Courses)

Dr. C.M. Jangme

M. Pharm. Ph.D.
Associate Professor, Dept. of Pharmacology,
Maharashtra College of Pharmacy,
Nilanga, Dist. Latur (MS)

Mr. R.D. Wadulkar

M. Pharm. Department of Pharmacology, Shivlingeshwar College of Pharmacy, Almala, Tq. Ausa, Dist. Latur (MS)

Dr. M. D. Burande

M. Pharm. Ph.D. Principal, CAYMET's Siddhant College of Pharmacy, Sudumbare, Pune (MS)

Dr. B.N. Poul

M. Pharm. Ph.D. Principal, Maharashtra Polytechnic (D.Pharm.) Institute, Nilanga, Dist. Latur (MS)

Price ₹ : 350.00



N1311



Content page of a text book of Principle of Pathysiology

Chapter 1	INTRODUCTION TO PATHOPHYSIOLOGY	01
1.1	Introduction	
1.2	Need of pathophysiology study	
Chapter 2	CONCEPT OF HEALTH AND DISEASE	03
2.1	Concept of health	
2.2	Concept of disease	
2.3	Components of disease process	
2.4	Clinical intervention	
2.5	Classification of diseases	
2.6	Theory and Science	
2.7	Adaptation and homeostasis	
Chapter 3	CELL STRUCTURE AND INTERCELLULAR COMMUNICATION	26
3.1	Introduction	
3.2	Mechanism of intercellular communication	
3.3	Mechanism of abnormal intercellular communication.	
Chapter 4	CELLULAR NUTRITION AND ENERGY METABOLISM	45
4.1	Introduction	
4.2	Energy balance within cell	
4.3	Energy input	
4.4	Metabolic pathway for energy production	
4.5	Energy Output	
4.6	Mechanism of energy imbalance	
4.7	Energy imbalance and disease	
Chapter 5	ELECTROPHYSIOLOGY	59
5.1	Introduction	
5.2	Cardiac muscle	
5.3	Skeletal muscle	
5.4	Neuron	
5.5	Mechanism of conduction	
5.6	Conduction in specific excitable tissues	
5.7	Mechanism of altered conduction	
Chapter 6	CELLULAR MECHANISM OF MUSCLE CONTRACTION	73
6.1	Muscle types	
6.2	Microanatomy of muscle tissue	
6.3	Sliding filament model of contraction	
6.4	Cross bridge cycle in skeletal and cardiac muscle	
6.5	Mechanism of smooth muscle contraction	
6.6	Energy metabolism	
6.7	Mechanism of abnormal muscle contraction	



Content page of a text book of Principle of Pathysiology

0	OF LUI AR ENVIRONMENT	
7.1	CELLULAR ENVIRONMENT	89
	Fluid balance	
7.2	Distribution of body fluid.	
7.3	Regulation of systemic fluid balance	
7.4	Compartmental fluid balance	
7.5	Capillary dynamics	
7.6	Hypovolemia	
7.7	Hypervolemia	
7.8	Hypo-osmolar imbalance	
7.9	Acid base balance	
7.10	Metabolic alkalosis	
7.11	Metabolic acidosis	
7.12	Respiratory alkalosis	
7.13	Respiratory acidosis	
Chapter 8	IMMUNITY AND RELATED DISORDERS	109
8.1	Immune system	
8.2	Adaptive immunity	
8.3	Innate Immunity	
8.4	Major histocompatibility complex	
8.5	Immune response	
8.6	Regulation of immune response	
8.7	Hypersensitivity	
8.8	Auto Immunity	
8.9	Lymphomas Hodgkin's Disease	
8.10	Non-Hodgkin's Lymphoma	
8.11	Infectious mononucleosis	
8.12	AIDS: Definition, etiology, pathophysiology, clinical manifestation,	
	prevention and treatment	
Chapter 9	INFLAMMATION AND HEALING	132
9.1	Inflammation	
9.2	Components of Inflammatory response system	
9.3	Initiation of Inflammatory response	
9.4	Types of Inflammation	
9.5	Healing	
Chapter 1		140
10.1	Introduction to Cardiovascular system	
10.2	Hypertension	
10.3	Atherosclerosis	
10.4	Coronary Artery disease	
10.5	Heart Failure	

