

Social Pharmacy

Practical Notebook Course Code ER20-15P

for First Year Diploma in Pharmacy

has been written and presented as per the vision and recommendation of the National Education Policy, reflected in Pharmacy Council of India's revised education regulations for Diploma in Pharmacy recognized as ER-20. In ER-20, introduction of a new subject **Social Pharmacy: Theory and Practical** not only boosts up health care concepts in the country but also provides simulated experience in various public health and social pharmacy activities.

The new curriculum of this program has come with the objectives and outcomes in reference to the role of pharmacists in various national health programs, public health awareness, health hazards, preventive measures of various diseases, and first aid for various emergency conditions.

So as to achieve the abovementioned goals and make more interactive relationship with the society, this **Practical Notebook** consists of 25 experiments on •public health awareness, •health hazards, •role of pharmacists in disaster management, •advice on preventive measures of various communicable diseases, •tobacco cessation with hands-on-training on •basic life support, •SCA, •FBAO, •AED, •CPR, etc. The **Notebook** will certainly contribute to the enhancement of the skills and competency with the professional services at the level of national health.

Varun Dutt Sharma MPharm

is ex-Principal, Janta Polytechnic, Jahangirabad, Bulandshahar, UP, and currently Consultant at VYDSAM Ayurveda PG College, Khurja, UP.

SK Pandey BPharm

is ex-Head, Department of Pharmacy, Janta Polytechnic, Jahangirabad, Bulandshahar, UP.

Social Pharmacy

Sharma | Pandey



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



QR code to
access online
CBS catalogue
and price of
the book

ISBN: 978-93-5466-459-5



Social Pharmacy

Practical Notebook

Course Code ER20-15P

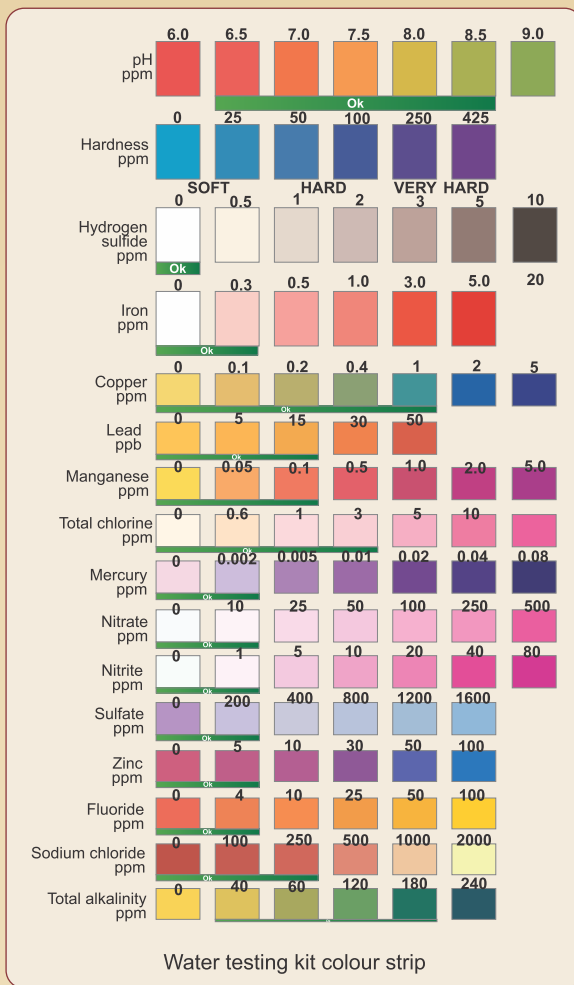
for First Year Diploma in Pharmacy

As per new syllabus prescribed by Pharmacy Council of India

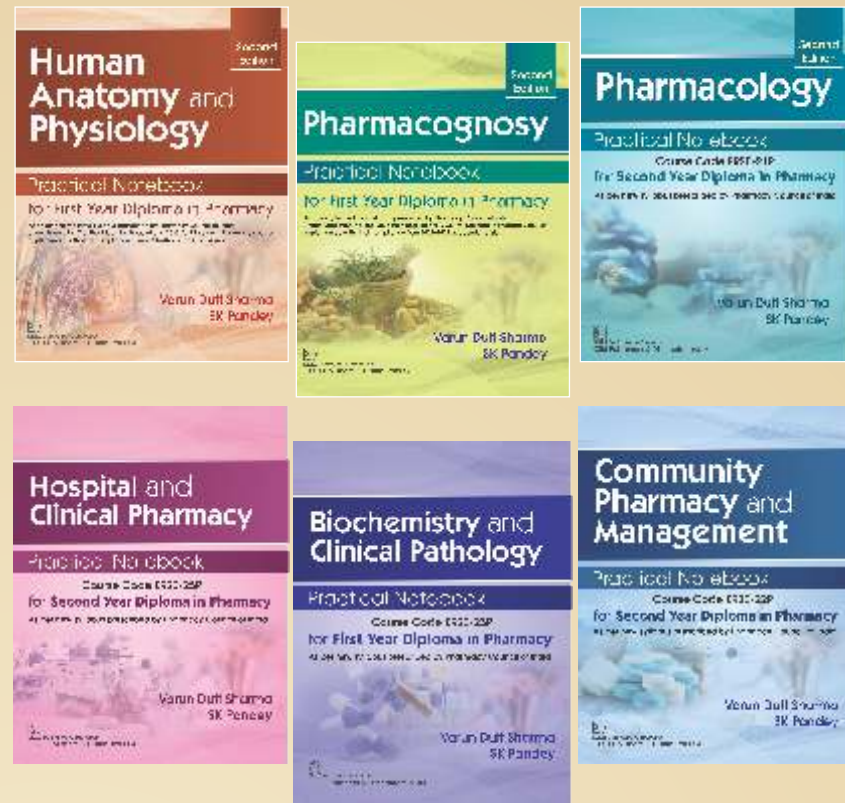
Varun Dutt Sharma
SK Pandey



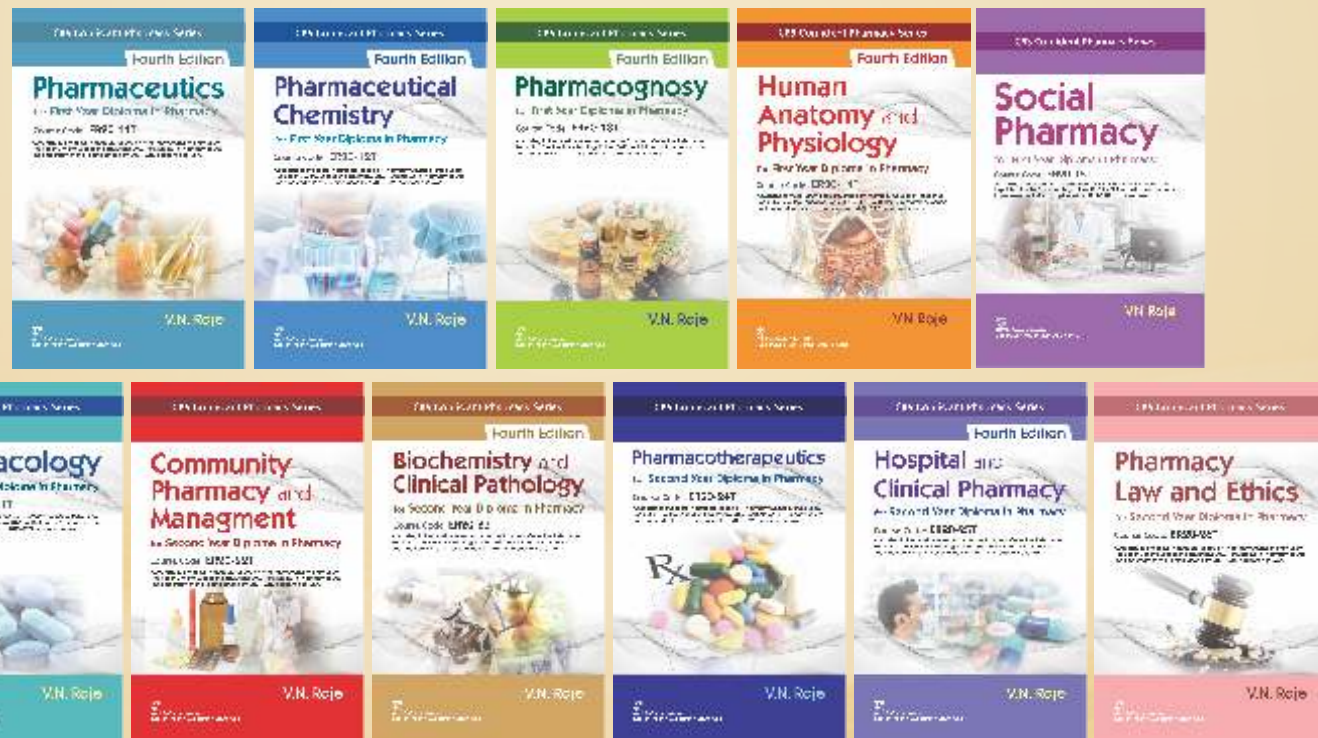
CBS Publishers & Distributors Pvt Ltd
Dedicated to Education



Other Books by the Same Authors



Other Outstanding CBS Books in Pharmacy by VN Raje



Other Outstanding CBS Books in Related Subjects



Dedicated to Education
CBS Publishers & Distributors Pvt Ltd

CBS Plaza, 4819/XI Prahad Street, 24 Ansari Road, Daryaganj, New Delhi 110 002, India. Ph: 23289259, 23266861/67, Fax: +91-11-23243014, Website: www.cbspd.com, e-mail: delhi@cbspd.com; cbspd@airtelmail.in
 Corporate Office: 204 FIE, Industrial Area, Patparganj, Delhi - 110 092, Ph: 4934 4934, Fax: 4934 4935, email: publishing@cbspd.com, publicity@cbspd.com

- Branches
- Bangalore: Seema House 2975, 17th Cross, K.R. Road, Banasankari 2nd Stage, Bangalore 560 070, Karnataka, Ph: 080-26771678/79, Fax: 080-26771680, e-mail: bangalore@cbspd.com
 - Chennai: 7, Subbaraya Street, Shenoy Nagar, Chennai 600 030, Tamil Nadu, Ph: 044-26681266, 26680620, Fax: 044-42032115, e-mail: chennai@cbspd.com
 - Kochi: 42/1325-26 Power House Road, Opposite KSEB Power House, Kochi 682 018, Kerala Ph: 0484-4059061-65, Fax: 0484-4059065, email: kochi@cbspd.com
 - Kolkata: 147, Hind Ceramics Compound, 1st Floor, Nilgunj Road, Belghoria, Kolkata 700 056, West Bengal, India, Ph: +033-25633965, 033-25633056 e-mail: kolkata@cbspd.com
 - Lucknow: Basement, Khushuma Complex, 7 Meerabai Marg (Behind Jawahar Bhawan), Lucknow-226001, UP, Ph: +522-4000032 e-mail: ltw@lucknow.cbspd.com
 - Mumbai: PWD Shed, Gala No. 25/26, Ramchandra Bhatt Marg, Next J.J. Hospital Gate No. 2, Opp. Union Bank of India, Noorbaug, Mumbai-400009, Maharashtra, Ph: +91-22-66661800/89 Mob: 0-8424005658 e-mail: mumbai@cbspd.com
 - Hyderabad: 0-9885175004 • Jharkhand: 0-9811541605 • Nagpur: 0-9421945513 • Patna: 0-9334159340 • Pune: 0-923451994 • Uttarakhnad: 0-9716462459

Social Pharmacy

Practical Notebook

Course Code ER20-15P

for **First Year Diploma in Pharmacy**

As per new syllabus prescribed by Pharmacy Council of India

Varun Dutt Sharma MPharm

Ex-Principal

Janta Polytechnic, Jahangirabad, Bulandshahar, Uttar Pradesh
Consultant, VYDSAM Ayurveda PG College, Khurja (UP)

SK Pandey BPharm

Ex-Head, Department of Pharmacy

Janta Polytechnic, Jahangirabad, Bulandshahar, Uttar Pradesh



CBS Publishers & Distributors Pvt Ltd

New Delhi • Bengaluru • Chennai • Kochi • Kolkata • Lucknow • Mumbai
Hyderabad • Jharkhand • Nagpur • Patna • Pune • Uttarakhand

Disclaimer

Mass communication and media are constantly changing fields. New technologies and developments have broadened the scope of information and entertainment. 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, printer and the authors will not be held responsible for any inadvertent errors or inaccuracies.

Social Pharmacy

Practical Notebook

Course Code ER20-15P

for **First Year Diploma in Pharmacy**

As per new syllabus prescribed by Pharmacy Council of India

ISBN: 978-93-5466-459-5

Copyright © Authors and Publisher

First Edition: 2023

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or any information storage and retrieval system without permission, in written, from the authors and the publisher.

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

Fax: 011-23243014

Website: www.cbspd.com

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

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

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
- **Chennai:** 7, Subbaraya Street, Shenoy Nagar, Chennai 600 030, Tamil Nadu, India
Ph: +91-44-26680620, 26681266 Fax: +91-44-42032115 e-mail: chennai@cbspd.com
- **Kochi:** 42/1325, 36, Power House Road, Opposite KSEB, Ernakulam 682 018 Kochi, Kerala, India
Ph: +91-484-4059061-67 Fax: +91-484-4059065 e-mail: kochi@cbspd.com
- **Kolkata:** 147, Hind Ceramics Compound, 1st Floor, Nilgunj Road, Belghoria, Kolkata 700 056, West Bengal, India
Ph: +91-33-25633055/56 e-mail: kolkata@cbspd.com
- **Lucknow:** Basement, Khushnuma Complex, 7-Meerabai Marg (Behind Jawahar Bhawan), Lucknow-226 001, Uttar Pradesh, India
Ph: +910522-4000032 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: +91-22-66661880/89 e-mail: mumbai@cbspd.com

Representatives

- | | | | | | |
|--------------------|--------------|--------------------|--------------|----------------------|--------------|
| • Hyderabad | 0-9885175004 | • Jharkhand | 0-9811541605 | • Nagpur | 0-9421945513 |
| • Patna | 0-9334159340 | • Pune | 0-9623451994 | • Uttarakhand | 0-9716462459 |

Printed at: Chaman Enterprises, Delhi, India

Certificate

Student's Name: _____

Class _____ Roll No. _____

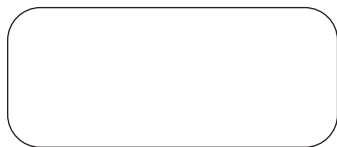
Subject _____

This is to certify that experiments, written in the index, have been performed by the student, are satisfactory.

Grade

Name and signature of lab. in-charge

College stamp



Date



Syllabus

Social Pharmacy—Practical

Course Code: ER20-15P

75 Hours (3 Hours/week)

Scope: This course is designed to provide simulated experience in various public health and social pharmacy activities.

Course Objectives: This course will train the students on various roles of pharmacists in public health and social pharmacy activities in the following areas:

1. National immunization programs
2. Reproductive and child health programs
3. Food and nutrition related health programs
4. Health education and promotion
5. General roles and responsibilities of the pharmacists in public health
6. First Aid for various emergency conditions including basic life support and cardiopulmonary resuscitation

Course Outcomes: Upon successful completion of this course, the students will be able to:

1. Describe the roles and responsibilities of pharmacists in various national health programs
2. Design promotional materials for public health awareness
3. Describe various health hazards including microbial sources
4. Advice on preventive measures for various diseases
5. Provide first aid for various emergency conditions

Note: Demonstration/Hands-on experience/preparation of charts/models/promotional materials/role plays/enacting/e-brochures/e-flyers/podcasts/video podcasts/any other innovative activities to understand the concept of various elements of social pharmacy listed here. (At least one activity to be carried out for each one of the following):

Practicals

1. National immunization schedule for children, adult vaccine schedule, vaccines which are not included in the National Immunization Program.
2. RCH—reproductive and child health—nutritional aspects, relevant national health programmes.
3. Family planning devices
4. Microscopical observation of different microbes (ready-made slides)
5. Oral health and hygiene
6. Personal hygiene and etiquettes—hand washing techniques, Cough and sneeze etiquettes.
7. Various types of masks, PPE gear, wearing/using them, and disposal.
8. Menstrual hygiene and products used
9. First Aid: Theory, basics, demonstration, hands on training, audio-visuals, and practice, BLS (Basic Life Support) Systems [SCA: Sudden Cardiac Arrest, FBAO: Foreign Body Airway Obstruction, CPR, Defibrillation (using AED) (includes CPR techniques, First Responder).
10. Emergency treatment for all medical emergency cases, viz. snake bite, dog bite, insecticide poisoning, fractures, burns, epilepsy, etc.
11. Role of Pharmacist in Disaster Management.
12. Marketed preparations of disinfectants, antiseptics, fumigating agents, antilarval agents, mosquito repellents, etc.
13. Health Communication: Audio/Video podcasts, Images, PowerPoint Slides, Short Films, etc. in regional language(s) for mass communication/education/awareness on 5 different communicable diseases, their signs and symptoms, and prevention.
14. Water purification techniques, use of water testing kit, calculation of content/percentage of KMnO_4 , bleaching powder to be used for wells/tanks

15. Counselling children on junk foods, balanced diets—using Information, Education and Communication (IEC), counselling, etc. (Simulation Experiments).
16. Preparation of various charts on nutrition, sources of various nutrients from locally available foods, calculation of caloric needs of different groups (e.g. child, mother, sedentary lifestyle, etc.). Chart of glycemic index of foods.
17. Tobacco cessation, counselling, identifying various tobacco containing products through charts/pictures

Assignment

The students shall be asked to submit the written assignments on the following topics (one assignment per student per sessional period, i.e. a minimum of THREE assignments per student)

1. An overview of Women's Health Issues
2. Study the labels of various packed foods to understand their nutritional contents
3. Breastfeeding counselling, guidance—using Information, Education and Communication (IEC)
4. Information about the organizations working on de-addiction services in the region (city/district, etc.)
5. Role of a pharmacist in disaster management: A case study
6. Overview on the National Tuberculosis Elimination Programme (NTEP)
7. Drug disposal systems in the country, at industry level and citizen level
8. Various Prebiotics or Probiotics (dietary and market products)
9. Emergency preparedness: Study of local Government structure with respect to Fire department, Police department, health department
10. Prepare poster/presentation for general public on any one of the Health Days, e.g. Day, AIDS Day, Handwashing Day, ORS Day, World Diabetes Day, World Heart Day, etc.
11. List of home medicines, their storage, safe handling, and disposal of unused medicines
12. Responsible use of Medicines: From Purchase to Disposal
13. Collection of newspaper clips (minimum 5) relevant to any one topic and its submission in an organized form with collective summary based on the news items
14. Read a minimum of one article relevant to any theory topic, from Pharma/Science/or other Periodicals and prepare summary of it for submission
15. Potential roles of pharmacists in rural India

Field Visits

The students shall be taken in groups to visit any THREE of the following facilities to witness and understand the activities of such centres/facilities from the perspectives of the topics discussed in theory and/or practical courses. Individual reports from each student on their learning experience from the field visits shall be submitted.

1. Garbage Treatment Plant
2. Sewage Treatment Plant
3. Bio-medical Waste Treatment Plant
4. Effluent Treatment Plant
5. Water purification plant
6. Orphanage/Elderly-Care-Home/School and or Hostel/Home for persons with disabilities
7. Primary health care centre



Preface

The Pharmacy Council of India made regulations under Section 10 of Pharmacy Act, 1948 called “The Education Regulations, 2020, for Diploma in Pharmacy course.” It was approved by Government of India, Ministry of Health & Family Welfare, which was notified in October, 2020 and implemented in 2021 for Diploma in Pharmacy students.

The new program (Social Pharmacy) is added at diploma level first year both in theory and practical by the apex body Pharmacy Council of India to fulfil the vision and recommendations of the National Education Policy of Government of India. A part from the conventional methodology the ER, 2020, is more focussed not only for development of skill, attitude, and value but also it fulfils the professional demands in the field of pharmacy along with health care system of the nation that are essential for the practice of the profession.

This course is designed to develop competency and skill in various public health and social pharmacy activities like National Immunization programs, RCH, food and nutrition related programs, first aid for various emergency conditions including basic life support, CPR, etc.

This manual includes 25 experiments on public health awareness, health hazards, role of pharmacists in disaster management, advice on preventive measures of various communicable diseases, tobacco cessation with hands-on training on basic life support, SCA, FBAO, AED, CPR, etc. Some left-sided blank pages are provided for making diagrams and calculations wherever applicable.

We shall gratefully acknowledge the comments, suggestions and criticism by respected teachers and students for improvement of future edition. We express sincere thanks to Mr Satish Kumar Jain, Chairman & Managing Director and Mr YN Arjuna, Vice President—Publishing, Editorial, and Publicity, M/S CBS Publishers & Distributors for their cooperation, encouragement and assistance in bringing out of this Practical Notebook. Finally our gratitude to our colleagues for their inspiration and motivation.

Varun Dutt Sharma
SK Pandey

Contents

<i>Syllabus</i>	<i>v</i>
<i>Preface</i>	<i>vii</i>
1. National Immunization Schedule	1
Experiment 1: Visit a family in nearby village and collect the data of vaccination/immunization of children	5
Experiment 2: Visit a family in nearby village and collect the data of vaccination/immunization of pregnant women	9
Experiment 3: Visit a family in nearby village and collect the data of vaccination/immunization of adult	13
2. Reproductive and Child Health (RCH)	21
Experiment 4: To study the RCH case in your locality or area or specific region and report	25
Experiment 4A: To take survey of a nearby village with the health worker, i.e. ASHA/Anganwadi staff about RCH and submit the report	27
3. Family Planning Devices	33
Experiment 5: Arrange awareness programme on contraceptive devices to nearby village with the help of CHC/PHC health worker staff like ASHA/Nurses/pharmacist/Anganwadi staff and submit the report	47
4. Microscopical Examination of Different Microbes (Ready-made Slides)	49
Experiment 6: Identification of ready-made slides of pathogenic microbes by their microscopical features and report the type of microbes	65
5. Oral Health and Hygiene	69
Experiment 7: Visit to a family in nearby village and assess the oral hygiene of the members of the family	77
6. Personal Hygiene and Etiquettes	79
Experiment 8: Visit to a family in nearby village and assess the personal hygiene of the members of the family	83
7. Masks and PPE	89
Experiment 9: Training on use various types of masks	89
Experiment 9A: Training on wearing/using/disposal of PPE	95
8. Menstrual Hygiene and Products used	99
Experiment 10: To arrange awareness program about menstrual hygiene in a nearby village with the health worker, i.e. ASHA /Anganwadi staff and submit the report	111
9. First Aid	113
Experiment 11: To carry out hands-on first aid training and demonstration of basic life support (BLS) system, sudden cardiac arrest (SCA) and cardiopulmonary resuscitation (CPR)	119
Experiment 12: To carry out hands-on training and demonstration of AED and FBAO	131
10. Emergency Treatment (for all Emergency Cases)	137
Experiment 13: To study the emergency treatment of snake bite, dog bite, insecticide poisoning, fractures, burns, epilepsy	137
Experiment 14: Visit a family in nearby place and collect the data of emergency treatment after snake bite	153

11. Role of Pharmacist in Disaster Management	157
Experiment 15: To carry out survey on role of pharmacists (employed in Government Hospital, i.e. District, CHC, PHC) in Disaster Management and submit the report. Collect data from all employed pharmacists of the district where your institute is located	165
12A. Antilarval Agents and Mosquito Repellent	171
Experiment 16: To carry out market survey of products belong to mosquito repellent and larvicides and report the best product with reasons	171
12B. Antiseptics and Disinfectants	185
Experiment 17: To carry out market survey of products: Antiseptics and report the best product to use on skin and wound cleaning with reasons	185
OR	
To carry out market summary of products: Disinfectants and report the best product to use as surface disinfectant with reasons	185
Experiment 17A: To arrange awareness program on antilarval agents and mosquito repellent, antiseptic and disinfectants in a nearby village and submit the report	197
13. Health Communication	199
Experiment 18: To prepare audio/video podcasts/images/PowerPoint slides/short film on communicable diseases and arrange awareness program in a nearby village/locality/students of other branches and submit the report	211
14. Water Purification Techniques, use of Water Testing Kit, Calculation of Content/Percentage of KMnO_4, Bleaching Powder to be used for Wells/Tanks	217
Experiment 19: To carry out water treatment by potassium permanganate to given sample of potable water (one litre) containing 1 gm of iron and Mn each and report their purity	219
Experiment 20: To carry out water treatment (calculation and testing) by potassium permanganate to given sample of 500 L of potable water. Perform the test by using water testing kit/test strip/digital instruments, etc. of given sample of potable water	221
Experiment 21: To carry out water treatment (calculation and testing for free residual chlorine) bleaching powder to the wells/tanks water	229
15. Counseling Children on Junk Foods, Balanced Diets—using Information, Education and Communication (IEC), Counseling, etc. (Simulation Experiments)	235
Experiment 22: To collect data of at least 10 children of your locality/society as per diet table and organize counseling session for those children	241
16. Preparation of Various Charts on Nutrition, Sources of Various Nutrients from Locally Available Food, Calculation of Caloric Needs of Different Groups (e.g. Child, Mother, Sedentary Lifestyle, etc.), Charts of Glycemic Index of Food	245
Experiment 23: To take counseling session of at least five diabetic patients and report their GI and GL and calculate total calories of foods they take in 24 hours	257
Experiment 24: To report his/her (each student) GI and GL and calculate total calories of foods he/she takes in 24 hours	259
17. Tobacco Cessation, Counseling, Identifying Various Tobacco Containing Products Through Charts/Pictures	263
Experiment 25: To organize counseling/awareness session to youth or students of your institute of various branches by charts/posters/PowerPoint presentation and submit the report as per table given	269

