



# PHARMACEUTICS (THEORY)

Pharm D (Doctor of Pharmacy), 1<sup>st</sup> Year

Dr. Vivek Subhash Tarate  
Mr. Amol Tanaji Ubale  
Ms. Swapnali D. Patil  
Mr. Rohit Krishna Pawar  
Ms. Safina I. Mulla

# **PHARMACEUTICS**

## **(THEORY)**

**Dr. Vivek Subhash Tarate**

Vice-Principal & Professor, SDNCRES's,  
Late Narayandas Bhawandas Chhabada Institute of Pharmacy,  
Raigaon, Satara.

**Mr. Amol Tanaji Ubale**

Principal at SDNCRES Mahalaxmi Institute of  
Pharmacy (D. Pharm) Raigaon, Satara Maharashtra.

**Ms. Swapnali D. Patil**

YSPMs, Yashoda Technical Campus, Satara.

**Mr. Rohit Krishna Pawar**

Assistant Professor, SDNCRES's, Late Narayandas Bhawandas  
Chhabada Institute of Pharmacy, Raigaon, Satara.

**Ms. Safina I. Mulla**

Assistant Professor, Women's College of Pharmacy,  
Peth-Vadgaon, Kolhapur.

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Authored By: **Dr. Vivek Subhash Tarate, Mr. Amol Tanaji Ubale,  
Ms. Swapnali D. Patil, Mr. Rohit Krishna Pawar,  
Ms. Safina I. Mulla**

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Mob: +91-8007068686

Email: [editor@kdpublications.in](mailto:editor@kdpublications.in)

Web: <https://www.kdpublications.in>

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Mr. Rohit Krishna Pawar, Ms. Safina I. Mulla

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## PREFACE

This book “Pharmaceutics (Theory)” has been written with the conception of introducing pharmacy students, the fundamentals of pharmaceutics. The book contains eight chapters. The first chapter provides information about the Introduction to dosage forms, Prescription, and Posology. In the 2nd chapter explained the Historical background and development of profession of pharmacy and pharmaceutical industry in brief. In 3rd chapter given about Development of Indian Pharmacopoeia and introduction to other Pharmacopoeias such as BP, USP, European Pharmacopoeia, Extra pharmacopoeia and Indian national formulary. The 4<sup>th</sup> Chapter Weights and measures, Calculations involving percentage solutions, allegation, proof spirit, Isotonic solutions etc. Chapter five provides Powders and Granules: Classification advantages and disadvantages, Preparation of simple, compound powders, Insufflations. Dusting powders. Eutectic and Explosive powders, Tooth powder and effervescent powders and granules. In chapter 6 Monophasic Dosage forms: Theoretical aspects of formulation including adjuvant like stabilizers, colorants. flavors with examples. Study of Monophasic liquids like gargles. mouth washes, Throat paint, Ear drops, Nasal drops, Liniments and lotions, Enemas and collodions. In 7<sup>th</sup> Chapter explained Biphasic dosage forms: Suspensions and emulsions, Definition, advantages and disadvantages, classification, test for the type of emulsion. formulation. stability and evaluation. Chapter 8 described Suppositories and pessaries: Definition, advantages and disadvantages, types of bases. method of preparation, Displacement value and evaluation. Chapter 9 elaborates on Galenical’s: Definition, equipment for different extraction processes like infusion. Decoction. Maceration and Percolation, methods of preparation of spirits, tinctures and extracts. In 10<sup>th</sup> defined only calculations about Pharmaceutical. After 11 and 12 described Surgical aids: Surgical dressings, absorbable gelatin sponge, sutures, ligatures and medicated bandages. Incompatibilities: Introduction, classification and methods to overcome the Incompatibilities.

**Scope and objectives:** This course is designed to Impart a fundamental knowledge on the art and science of formulating different dosage forms. It prepares the students for most basics of the applied field of pharmacy.

## **Abbreviations**

Liquid Dosage Forms (LDF)

Body Surface Area (BSA)

Total Parenteral Nutrition (TPN)

Board Certified Ambulatory Care Pharmacists (BCACP)

Banaras Hindu University (BHU)

Joint Entrance Examination (JEE)

Indian Institutions of Technology (IITs)

Graduate Aptitude Test for Engineering (GATE)

Compound Annual Growth Rate (CAGR)

Indian Immunologicals Ltd. (IIL)

Bharat Immunologicals and Biologicals Corporation (BIBCOL)

Central Drug Standards and Control Organization (CDSCO)

National Pharmaceutical Pricing Authority (NPPA)

Narcotics Control Bureau (NCB)

British Pharmacopoeia (BP)

United States Pharmacopoeia (USP)

National Formulary (NF)

United States Food and Drug Administration (US-FDA)

World Health Organisation (WHO)

National Formulary of India (NFI)

Pharmacopoeia Commission (IPC)

Pharmaceutical Association (IPA)

Indian Pharmacy Graduates Association (IPGA)

Indian Drugs Manufacturing Association (IDMA)

Indian Health Products Association (IHPA)

All India Drug Control Officers Confederation (AIDCOC)

All-India Organization of Chemists & Druggists (AIOCD)

Diploma in pharmacy (D. Pharm)

Bachelor of pharmacy (B. Pharm)

Doctor of pharmacy (Pharm. D)

Masters in pharmacy (M. Pharm)

System of Units (SI)

Percentage Strength of Medicament (PSM)

Active Pharmaceutical Ingredients (APIs)

Granules (GR)

Aspirin Paracetamol Caffeine (ACP)

Polyvinylpyrrolidone (PVP)

Sodium Lauryl Sulphate (SLS)

Polyethylene Glycol (PEG)

British Pharmaceutical Codex (BPC)

Dome Tissue Engineering Chamber (TEC)

Methacrylate Gelatine (GM)

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## ABOUT THE AUTHORS



**Dr. Vivek Subhash Tarate** is currently working as Vice-Principal & Professor at SDNCRES's, Late Narayandas Bhawandas Chhabada Institute Of Pharmacy, Raigaon, Satara. He has completed M.Pharm in Pharmaceutics from Savitribai Phule Pune University, Pune. He has completed PhD in Pharmaceutical Sciences, PhD in Naturopathy (Diabetes Reversal). He received another PhD (HC) in subject healthcare from Commonwealth University, kingdom of Tonga for his contribution to healthcare sector. He is also appointed as VIP member of International Teachers Association. He also Completed Certificate and Diploma courses in Naturopathy, Medical Astrology (International Medical Astrologer), Cupping Therapy (TCM – China), Code Blue Trainer (Lincoln University, Malaysia), Nutrition & Diet Planning (FAB Academy, USA) and Regulatory Affairs (IADL, UK approved) from various national & international Universities. He received 10 Indian Patent Grants

(Designs), 1 Indian Utility Patent grant & 13 International Patent Grants. He received 5 Copyrights grant from Copyright Office, Government of India for his value-added courses designs. He is a founder of Ssuvijayaa Group. He is a Global Outreach - Postdoctoral Member of the American Society for Microbiology. He is also working as consultant for Hospitals and Pharma giants. He is Member of All India Council for Technical Skill Development. He is a fellow member of Screenwriters Association, Mumbai. He is a certified Psychological Counselor. He is also member of Indo-Vietnam medical board. Recently for his contribution to Pharmacy Research & Development field he was felicitated by 49th Supreme Court's, Hon. Chief Justice of India, Justice Dr. Uday Lalit sir.



**Mr. Amol Tanaji Ubale** He is currently working as a Principal at SDNCRES Mahalaxmi Institute of Pharmacy (D. Pharm) Raigaon, Satara Maharashtra. He has completed his Master of Pharmacy (Q.A.) from Shivaji University Kolhapur. He is pursuing his PhD in Sunrise University Rajasthan. He has 12 years of Academic & Administrative experience. His research interests include nanoparticles & herbal formulations. He applied for patents in India & South Africa. He also worked as Jury for Maharashtra Students Innovation Challenge 2023 organized by Govt of Maharashtra's District Skill Development, Employment & Entrepreneurship Guidance Centre, Satara. He is a life Member of Association of Pharmaceutical Teachers of India. He is Member of All India Council for Technical Skill Development. He is Resource person in Intellect Institute of Education & Research Pune. His book Pharmacist Practical Training Report Book as per PCI ER 2020 by KD Publications

Pune in 2023. His book Pharmaceutical Biotechnology for B. PHARM students of Sixth Semester published by Gyan Publications in 2023. His book D. Pharmacy multiple choice questions as per PCI ER-2020 Diploma in pharmacy first year published by Brilliant Publication in 2023. His book D. Pharmacy multiple choice questions as per PCI ER-2020 Diploma in pharmacy Second year published by Brilliant Publication in 2023. He has published 3 research papers & 10 Review articles in reputed journals. He is RMS (Reviewer) Member of the IJRAR - International Research Journal. He is a Member of the RMS (Reviewer) of the TIJER- International Research Journal. He a section editor in STM Journals: research & reviews: a journal of drug formulation, development and production.



**Ms. Swapnali D. Patil** is presently working at YSPMs, Yashoda Technical Campus, Satara. She has completed D. Pharm from SPS Late Suman Dhekane Pharmacy College Satara, B. Pharm. from Gourishankar Institute of Pharmacy, Limb, Satara (Shivaji University Kolhapur) and M. Pharm. from Yashoda Technical Campus, Satara (Shivaji University Kolhapur). She has pursuing her Ph.D. in Pharmaceutics subject from Suresh Gyanvihar University, Jaipur Rajasthan. Her research work is published in 01 National and 03 International journals also 3 review articles in various journals. She is working as a Lecturer at YSPMs Yashoda Technical Campus, Satara from June 2016. She published 3 patents and two books for Degree students Physical Pharmaceutics-II Scientific International Publishing House and Pharmaceutics – I Sprout Publications.



**Mr. Rohit Krishna Pawar** is currently working as Assistant Professor at SDNCRES's, Late Narayandas Bhawandas Chhabada Institute Of Pharmacy, Raigaon, Satara. He has completed M.Pharm in Pharmaceutics from Savitribai Phule Pune University, Pune. He received 1 Indian Patent Grants (Designs). His research interest includes GRDDS, Nanoparticles, Herbal formulations. He received 1 Copyrights grant from Copyright Office, Government of India for his value-added courses designs. He is reviewer & editor of many journals & publications houses. He published review as well as research papers in various UGC Care, Scopus journals. He is member of Association of Pharmacy Teachers in India.



**Ms. Safina I. Mulla** is presently working as a Assistant professor at Women's College of Pharmacy, Peth-Vadgaon, Kolhapur. She has completed B. Pharm from Gourishankar Institute of Pharmaceutical Education & Research, Satara (Shivaji University, Kolhapur) and M. Pharm in Pharmaceutics from Yashoda Technical Campus, Satara (Shivaji University Kolhapur). She is having more than 5 years of experience in academics. Her research interest in nanoparticles and hydrogels. She published review as well as research papers in various journals.



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