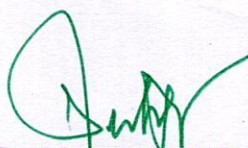


# HERBAL DRUG TECHNOLOGY



Prof. (Dr.) S. K. Panda  
Dr. Thilagam Ellappan  
Dr. Pushpendra Kumar Jain  
Dr. Mitali Shirmanker  
Dr. Sejal G. Patel



  
Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAL JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.



# HERBAL DRUG TECHNOLOGY (BP603T)

FOR B. PHARM. VI SEMESTER  
(Strictly as per syllabus Prescribed for B. Pharm. Semester  
-VI by Pharmacy Council of India, New Delhi)

 SHASHWAT  
PUBLICATION



  
Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.



# Course Content

## UNIT – I

1

### Herbs as Raw Materials

Definition of herb, herbal medicine, herbal medicinal product, herbal drug preparation, Source of Herbs

Selection, identification and authentication of herbal materials, Processing of herbal raw material

### Biodynamic Agriculture

Good agricultural practices in cultivation of medicinal plants including Organic farming. Pest and Pest management in medicinal plants: Biopesticides/Bioinsecticides.

### Indian Systems of Medicine

a) Basic principles involved in Ayurveda, Siddha, Unani and Homeopathy

Preparation and standardization of Ayurvedic formulations viz Aristas and Asawas, Ghutika, Churna, Lehya and Bhasma.

## UNIT-II

57

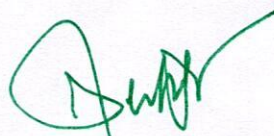
### Nutraceuticals

General aspects, Market, growth, scope and types of products available in the market. Health benefits and role of Nutraceuticals in ailments like Diabetes, CVS diseases, Cancer, Irritable bowel syndrome and various Gastro intestinal diseases.

Study of following herbs as health food: Alfaalfa, Chicory, Ginger, Fenugreek, Garlic,

Honey, Amla, Ginseng, Ashwagandha, Spirulina



  
Dr. N. SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.



## **Herbal-Drug and Herb-Food Interactions**

General introduction to interaction and classification. Study of following drugs and their possible side effects and interactions: Hypercium, kava-kava, Ginkobiloba, Ginseng, Garlic, Pepper and Ephedra.

### **UNIT-III**

**88**

#### **Herbal Cosmetics**

Sources and description of raw materials of herbal origin used via, fixed oils, waxes, gums colours, perfumes, protective agents, bleaching agents, antioxidants in products such as skin care, hair care and oral hygiene products.

#### **Herbal Excipients**

Herbal Excipients – Significance of substances of natural origin as excipients – colorants, sweeteners, binders, diluents, viscosity builders, disintegrants, flavors and perfumes.

#### **Herbal Formulations**

Conventional herbal formulations like syrups, mixtures and tablets and Novel dosage forms like phytosomes

### **UNIT- IV**

**121**

#### **Evaluation of Drugs**

WHO and ICH guidelines for the assessment of herbal drugs  
Stability testing of herbal drugs.

#### **Patenting and Regulatory Requirements of Natural Products**

- a) Definition of the terms: Patent, IPR, Farmers right, Breeder's right, Bioprospecting and Biopiracy
- b) Patenting aspects of Traditional Knowledge and Natural Products. Case study of Curcuma and Neem



**Dr. N.SENTHILKUMAR,  
PRINCIPAL,**

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.**



## Regulatory Issues

Regulations in India (ASU DTAB, ASU DCC), Regulation of manufacture of ASU drugs - Schedule Z of Drugs and Cosmetics Act for ASU drugs.

## UNIT-V

156

### General Introduction to Herbal Industry

Herbal drugs industry: Present scope and future prospects.

A brief account of plant-based industries and institutions involved in work on medicinal and

aromatic plants in India.

### Schedule T – Good Manufacturing Practice of Indian Systems of Medicine

Components of GMP (Schedule – T) and its objectives

Infrastructural requirements, working space, storage area, machinery and equipments, standard operating procedures, health and hygiene, documentation and records.



  
Dr. N.SENTHILKUMAR,  
PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.



## About the Book :

This book offers information on the fundamentals of the herbal drug industry, the quality of raw materials, and standards for the quality of herbal medications, herbal cosmetics, natural sweeteners, and nutraceuticals, among other things. The topic also places a strong emphasis on regulatory, patenting, and good manufacturing practices (GMP) concerns for herbal medicines. Herbal remedies have long been utilized extensively in both developed and poor nations. They are also very well-liked for their effectiveness, safety, and lack of negative side effects. However, the efficacy and safety evidence do not meet the standards required to enable their usage globally. To summarize the fundamental knowledge of herbal drug technology, regulatory and patenting issues, as well as current herbal excipients, etc., we have written this book. Additionally, we provide an overview of new developments in herbal technology for the management and prevention of many chronic illnesses.

## About the Authors :



**Prof. (Dr.) S. K. Panda**, A renowned Academician and Administrator in the field of Pharmacy having more than three decades 32 years of industrial, research & academic experiences, out of which 23 years in academic and 9 years in various reputed industries of India. He has 45 nos. of research publication in his credit and guided many of PG & UG level Students in various pharmacy institutions of the country. He is the recipient of "Life Time Achievement Gold Medal Award", "Rashtriya Vidya Saraswati Puraskar" and "Shiksha Bharati Puraskar" for outstanding achievement in Pharmaceutical Education. He is the Life Member of "Indian Hospital Pharmacist Association", "Indian Society of Technical Education" and "Association of Pharmaceutical Teacher of India". He has worked in reputed multinational company M/S Glaxo India Ltd, Mumbai presently known as GlaxoSmithKline and in M/S Li Taka Pharmaceuticals Ltd., Pune. At present, he is working as Professor and Director in Sherwood College of Pharmacy, Barabanki, Uttar Pradesh. Three books are published by him on subject of Pharmacognosy, Pharmacotherapeutics and Pharmaceutical Biotechnology for D. Pharm and B. Pharm courses respectively.

**Dr. Thilagam Ellappan** is currently a professor and Head of the Department of Pharmacognosy at JKMMRF's Annai JKK Sampoorani Ammal College of Pharmacy, Namakkal District, Tamil Nadu. Her educational background includes a Ph.D. from Jadavpur University in Kolkata, an M.Pharm from Kakatiya University in Warangal, and a B.Pharm from JKK Natarajah College of Pharmacy, Tamil Nadu. With over 25 years of academic and research experience, she has authored numerous research publications, holds patents and has presented her work at various scientific conferences. She also serves as a reviewer for reputable journals and has received awards such as the highly cited research paper award from Elsevier and the best poster award. She is an active life member of APTI (Association of Pharmacy Teachers of India). Her research interest encompass isolation and characterization of natural constituents, the development and standardization of herbal formulations, plant tissue culture techniques and pharmacological evaluation of natural products.



**Dr. Pushpendra Kumar Jain** is a passionate Professor with excellent presentation, research and communication skills. Organized and driven with impressive list of achievements excelling within high-pressure environments. Structured academic professional illustrating strong history of positive student learning outcomes fostered through creative curriculum delivery. Skilled in sparking thought-provoking discussions to increase student participation and increase information retention. Accomplished dignity of Dean equipped with record of success in lecturing and student mentoring. Focused on graduating well-qualified students ready for challenges of future careers. Analytical educator experienced in university environments. Knowledgeable about rigours of balancing research with classroom and administrative responsibilities. Expert in Novel Phyto formulation and their characterization dedicated to expanding collective knowledge base through new fresh, interesting studies. Published in multiple journals and sought-after speaker at field conferences.

**Dr. Mitali Shirmanker** is a professor and HOD of Pharmacognosy at Shankersinh Vaghela Bapu Institute of Pharmacy, Vasani, Gandhinagar. She has completed B. Pharm from Shri Sarvajani College of Pharmacy and M. Pharm in Pharmacognosy from Shri B. M. Shah Pharmaceutical Education and Research, Modasa. She has completed PhD from Hemchandracharya North Gujarat University in 2014. She has total 13.6 years of academic and research experience with over 27 research and review paper and 6 poster/oral presentation. She has delivered many lectures at various national and international level seminars, conferences or symposiums. Her research area includes formulation, standardization and evaluation polyherbal formulation, HPLC and HPTLC method development and validation, simultaneous estimation of drug by UV spectroscopic, HPLC and HPTLC method. She has guided 16 M.Pharm students. She is Member of Indian Society of Pharmacognosy and Society of Pharmaceutical Science and Research.



**Dr. Sejal G. Patel** is a Associate professor and HOD of Pharmacognosy at Nootan Pharmacy College, Sankalchand Patel University, Visnagar. She has completed B. Pharm from Nargund College of Pharmacy, RGUHS, Bangalore and M. Pharm in Pharmacognosy from Shree S.K. Patel college of Pharmaceutical Education Research at Ganpat University. She has completed PhD from J.J.T. University in 2017. She has total 13 years of academic and research experience. Her research area includes Extraction and Isolation of Phytoconstituents, and Preparation and standardization of Herbal formulation. She is Member of Board of Studies of Pharmacy and Subject Expert as well approved PhD guide of Pharmaceuticals in PhD committee at Sankalchand Patel University, Visnagar.

Price: ₹ 599/-



 **SHASHWAT**  
PUBLICATION



  
**Dr. N. SENTHILKUMAR,**  
PRINCIPAL,

**JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY,  
ETHIRMEDU, KOMARAPALAYAM - 633 183,  
NAMAKKAL DISTRICT, TAMILNADU.**



Export to Excel

ISBN Allotted

Search:

#	Book Title	ISBN	Product Form	Language	Applicant Type	Name of Publishing Agency/Publisher	Name of Author/Editor	Publication Date
1	HERBAL DRUG TECHNOLOGY (Edition First)	978-81-19908-81-3	Book	English	Publisher	Sheshwat Publication	Author : Prof. (Dr.) S. K. Panda, Dr. Thilagam Ellappan, Co-Author : Dr. Pushpendra Kumar Jain, Dr. Mitali Shirmanker, Dr. Sejal G. Patel	25/10/2023

Showing 1 to 1 of 1 entries

Previous 1 Next

Total Visitors 61966992



Dr. N. SENTHILKUMAR, PRINCIPAL,

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION  
ANNAL JKK SAMPOORANI ANNAL COLLEGE OF PHARMACY,  
ETHIRAMEDU, KOTMARAPALAYAM - 638 183,  
NAMAKKAL DISTRICT, TAMILNADU.