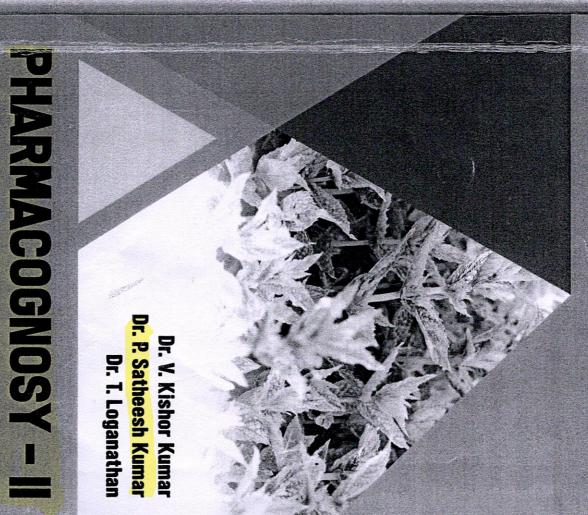


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# PHARMACOGNOSY - II



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### About the Units

#### Unit - 1

## Metabolic pathways in higher plants and their determination

- Brief study of basic metabolic pathways and formation of different secondary metabolites through these pathways. Shikimic acid pathway. Acetate pathway, and Amino acid pathway.
- ) Study of the utilization of radioactive isotopes in the investigation of Biogenetic studies.

#### Unit - 2

General introduction, composition, chemistry & chemical classes, biosources, therapeutic uses and commercial applications of the following secondary metabolites:

Alkaloids: Vinca, Rauwolfia, Belladonna, Opium

Phenylpropanoids and Flavonoids: Lignans, Tea, Ruta

Steroids, Cardiac Glycosides and Triterpenoids: Liquorice, Dioscorea, Digitalis

Volatile oils: Mentha, Clove, Cinnamon, Fennel, Coriander.

Iridoids, other terpenoids and Naphthaquinones: Gentian, Artemisia, taxus, carotenoids.

#### Unit - 3

Isolation, Identification and Analysis of Phytoconstituents

- a) Terpenoids: Menthol, Citral, Artemisin
- o) Glycosides: Glycyrhetinic acid and Rutin
- c) Alkaloids: Atropine, Quinine, Reserpine, Caffeine
- ) Resins: Podophyllotoxin, Curcumin

#### Unit - 4

Industrial production, estimation and utilization of the following phytoconstituents

Forskolin, Sennoside, Artemisinin, Diosgenin, Digoxin, Atropine Podophyllotoxin, Caffeine, Taxol, Vincristine and Vinblastine.

#### Unit - 5

the isolation, purification and identification of crude drugs. latest techniques like Spectroscopy, chromatography and ele Basics of Phytochemistry Modern methods of extraction, application of

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articles that have been published in different national and College of Pharmacy in Kumarapalayam, Tamil Nadu, Namakka academic researcher for 15 years. He has more than 35 research after completing his B.Pharm and M.Pharm degrees at the JKK District. He earned a Ph.D (Phytopharmacy and Phytomedicine) Dr. V. Kishor Kumar is a Professor and Head at the JKK Nattraja international journals. Ammal College of Pharmacy. He has been a Professor and Muniraja Medical Research Foundations - Annai JKK Sampoorani from the Tamil Nadu Dr. M.G.R. Medical University, Chennai

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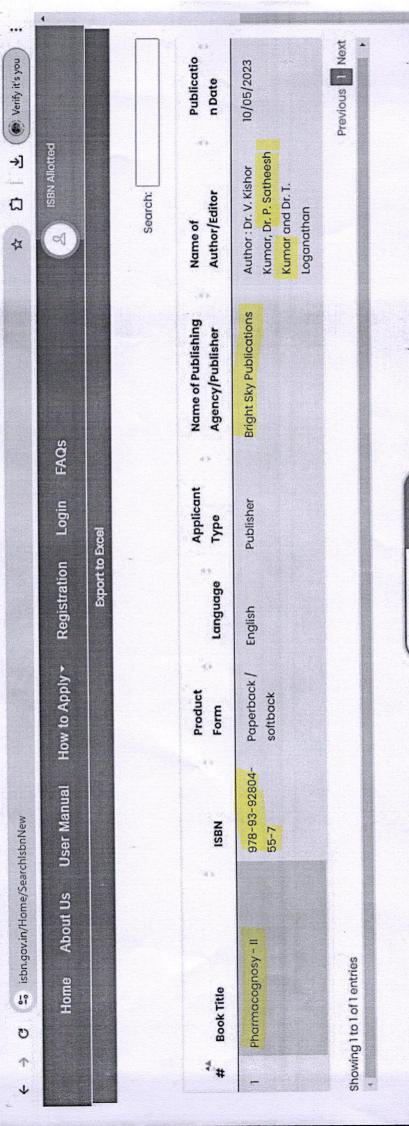
a Ph.D (Pharmacy) from Sunrise University, Alwar. He has 15 completed B.Pharm from JKK Natarajh College of Pharmacy, Pharmacy, Komarapalayam. Namakkal District. Tamil Nadu. He Dr. P. Satheesh Kumar is working as an Associate Professor in the international journals. Published more than 20 research articles in various National and years of teaching and academic research experience. He has Ammal College of Pharmacy, Komarapalayam, and was awarded M.Pharm completed from JKKMMRF'S Annai JKK Sampoorani JKKMMRF'S Annai JKK Sampoorani Ammal College of



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