

Contents

<i>Preface to Second Edition</i>	(ix)
<i>Preface to First Edition</i>	(xi)
<i>About the Author</i>	(xiii)
1. Sources of Crude Drug, Classification of Crude Drug, Principles of Plant Classification, Families	1
2. Microscopy of Crude Drugs: Stomata, Trichomes, Crystals, Vessels, Camera Lucida, Micrometers, Mounting Agents, Micro-chemical Reagents	18
3. Biogenesis.....	30
4. Plant Growth Regulators.....	50
5. Cultivation of Crude Drugs.....	54
6. Pesticides and Insecticides	66
7. Quality Control or Standardization of Herbal Drugs (WHO guidelines)	69
8. Adulteration	80
9. Chemical Tests.....	87
10. TLC Spraying Reagents.....	100
11. Plant Tissue Culture.....	108
12. Traditional Medicinal Systems and Formulations	121
13. Pharmacological Classification of Herbal Drugs	136
14. Marine Drugs	150
15. Nutraceuticals	158
16. Carbohydrates	165

(viii) Contents

17. Proteins	173
18. Lipids	176
19. Enzymes	184
20. Alkaloids	189
21. Glycosides	209
22. Essential Oils	246
23. Tannins	267
24. Resins	271
25. Plant Bitters	275
26. Plant Sweeteners	279
27. Mineral Drugs	283
28. Natural Allergens	286
29. Photosensitizing Agents	290
30. Fungal Toxins	294
31. Hallucinogens, Narcotics, Toxic Mushrooms	297
32. Fibers	301
33. Herbal Cosmetics	306
34. Intellectual Property Rights (IPRs)	315
35. Plants based Industries and Research Institutes in India	324
Practice Questions	331
Appendix-1: Ayurvedic, Siddha and Unani Systems Books (Drugs and Cosmetics Act, 1940) [The First Schedule]	347
Appendix-2: Drugs and Cosmetics Act, India Drugs Schedules	351
Appendix-3: GPAT Syllabus: Pharmacognosy	355