



CAYM Education Trusts

Siddhant College of Pharmacy

A/P Sudumbare, Talegaon –Chakan Road, Tal:Maval, Dist: Pune -412109

Phone: 02114-661947, Email: siddhantcollegeofpharmacy@yahoo.in, Website: www.siddhantcop.in

3.3.2

**Number of books and chapters in
edited volumes/books published and
papers published in national/
international conference
proceedings per teacher during last
five years**



CAYM Education Trusts

Siddhant College of Pharmacy

A/P Sudumbare, Talegaon –Chakan Road, Tal:Maval, Dist: Pune -412109

Phone : 02114-661947, ,Email: siddhantcollegeofpharmacy@yahoo.in, Website: www.siddhantcop.in

3.3.2: Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

SUMMARY OF DOCUMENTS

Sr. No.	Name of the Document	Page Number (From-To)
1	Book Publication Academic Year 2022-23	06-09
2	Book Publication Academic Year 2021-22	10-14
3	Book Publication Academic Year 2020-21	15-17
4	Book Publication Academic Year 2019-20	18
5	Book Publication Academic Year 2018-19	19-21



Red

PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBARE, PUNE-412 109



CAYM Education Trusts

Siddhant College of Pharmacy

A/P Sudumbare, Talegaon –Chakan Road, Tal:Maval, Dist: Pune -412109

Phone : 02114-661947, ,Email: siddhantcollegeofpharmacy@yahoo.in,Website: www.siddhantcop.in

3.3.2: Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

LIST OF BOOK PUBLICATION

Sl. No.	Name of the teacher	Title of the book/chapters published	National / International	Calendar Year of publication	ISBN number of the proceeding	Affiliating Institute at the time of publication	Name of the publisher
Academic Year 2022-23							
1	Dr. Narendra Gowekar, Dr. Amit Nerkar, Mrs.Trupti Kajale	Textbook of Medicinal Chemistry Part II	National	2023	978-93-95581-68-4	CAYMET's Siddhant College of Pharmacy, Sudumbare	Mahi Publication
2	Dr. Narendra Gowekar, Dr. Amit Nerkar, Mrs.Trupti Kajale	Textbook of Medicinal Chemistry Part I	National	2023	978-93-95581-59-2	CAYMET's Siddhant College of Pharmacy, Sudumbare	Mahi Publication
3	Mrs. Shubhangi Thopate-Kalokhe, Dr. Amit nerkar, Mrs. Deepali Gaikwad	Practical Book Human Hnatomy & Physiology	National	2023	978-93-95581-61-5	CAYMET's Siddhant College of Pharmacy, Sudumbare	Mahi Publication
4	Mrs. Deepali Gaikwad	Cells & Molecular Biology (PCI Syllabus)	NA	Dec. 2022	978-93-5585-049-2	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
Academic Year 2021-22							
5	Dr. Swati Deshmukh	Herbal Drug Technology (PCI Syllabus)	NA	Feb. 2022	978-93-90450-64-0	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication




PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBARE, PUNE-412 109

6	Mrs. Swati Jogdand	Pharmacology III (PCI Syllabus)	NA	Feb. 2022	978-93-90041-07-7	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
7	Mrs. Deepali Gaikwad	Cells & Molecular Biology (PCI Syllabus)	NA	Dec. 2022	978-93-5585-049-2	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
8	Mrs. Swati Jogdand	Pharmacovigilance (PCI Syllabus)	NA	Jul-22	978-93-5585-104-8	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
9	Dr Narendra M Gowekar	Advanced Instrumentation Techniques	National	2021	978-93-90460-04-5	Siddhant College of Pharmacy	Thakur Publication Private Ltd., Lucknow.
10	Dr Narendra M Gowekar	Covid 19 and its Impact	International	2021	978-81-947019-1-0	Siddhant College of Pharmacy	ESN Publications, Chennai.

Academic Year 2020-21

11	Dr. Swati Deshmukh	Pharmacognosy & Phytochemistry II (PCI Syllabus)	NA	Feb. 2021	978-93-90041-96-1	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
	Dr. R. K. Dumbre						
12	Mrs. Swati Jogdand	Pharmacology II	NA	Aug. 2021	978-93-89750-18-8	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
13	Mrs. Swati Jogdand	Pharmacy Practice (PCI Syllabus)	NA	Nov. 2021	978-93-90450-55-8	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication

Academic Year 2019-20

14	Dr. R. K. Dumbre, Dr. Swati Deshmukh	Pharmacognosy & Phytochemistry I (PCI Syllabus)	NA	Jan-20	978-93-89420-80-7	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
15	Mrs. Swati Jogdand	Pathophysiology (PCI Syllabus)	NA	Mar. 2019	978-93-332-0022-6	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication




PRINCIPAL
 SIDDHANT COLLEGE OF PHARMACY,
 SUDUMBRE, PUNE-412 109

16	Mrs. Swati Jogdand	Human Hnatomy & Physiology II	NA	Sep.2018	978--93-332-002-7	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication
17	Mrs. Swati Jogdand	Human Hnatomy & Physiology II	NA	Mar. 2019	978-93-90450-78-7	CAYMET's Siddhant College of Pharmacy, Sudumbare	Technical publication



Rd

PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109



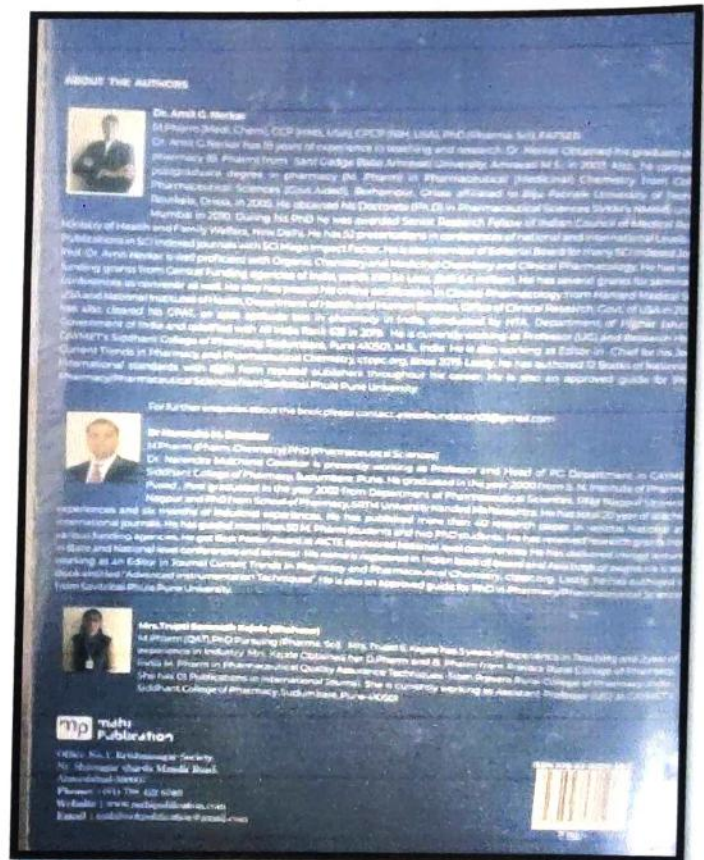
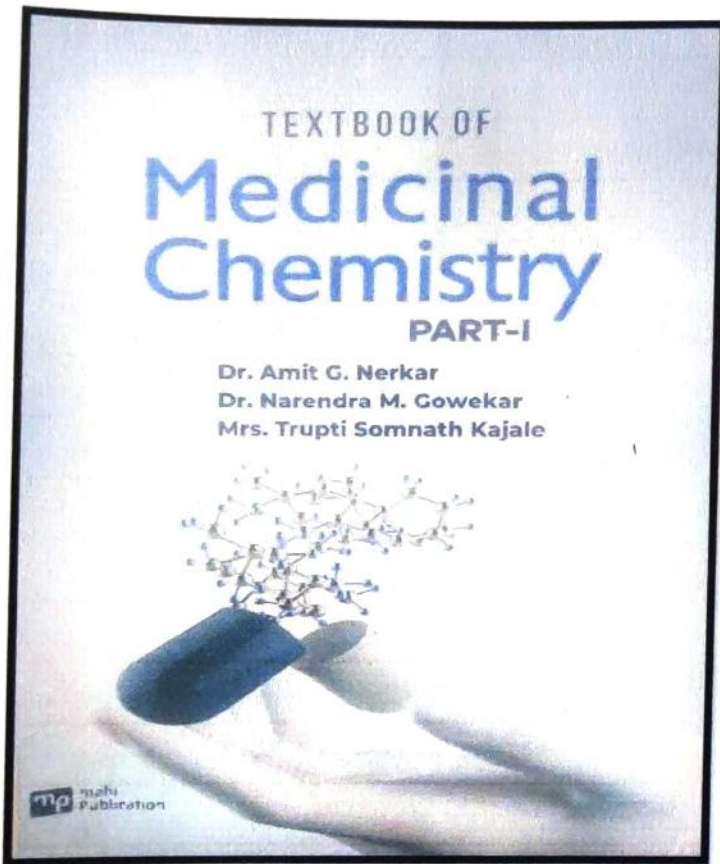
CAYM Education Trusts

Siddhant College of Pharmacy

A/P Sudumbare, Talegaon –Chakan Road, Tal: Maval, Dist: Pune -412109

Phone: 02114-661947, Email: siddhantcollegeofpharmacy@yahoo.in, Website: www.siddhantcop.in

Book Publication Academic Year 2022-23



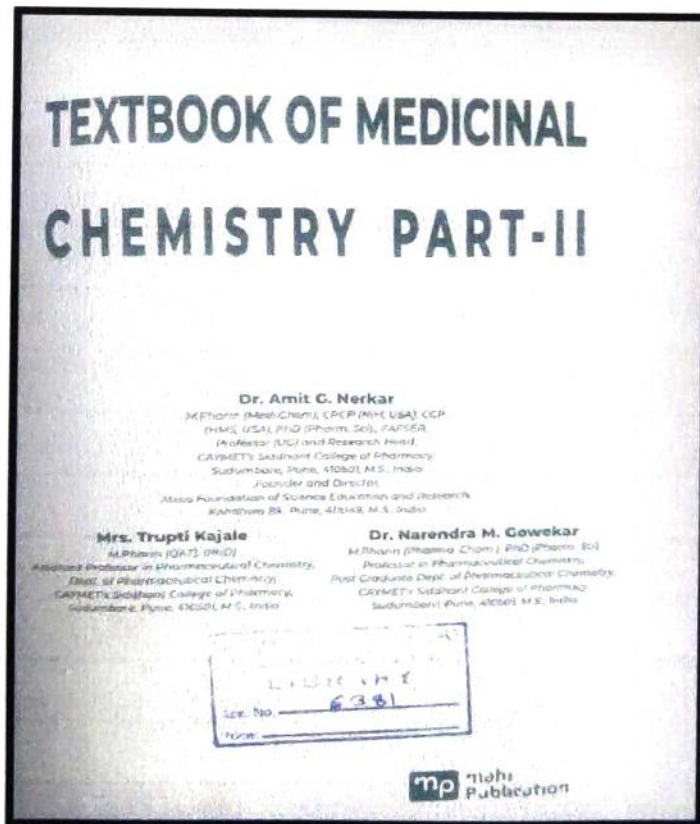
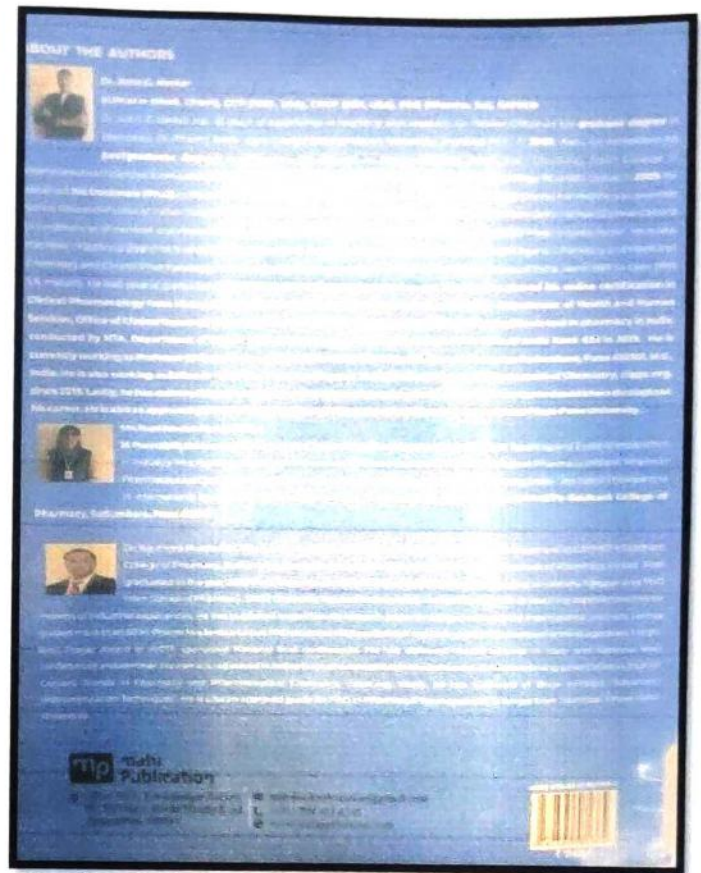
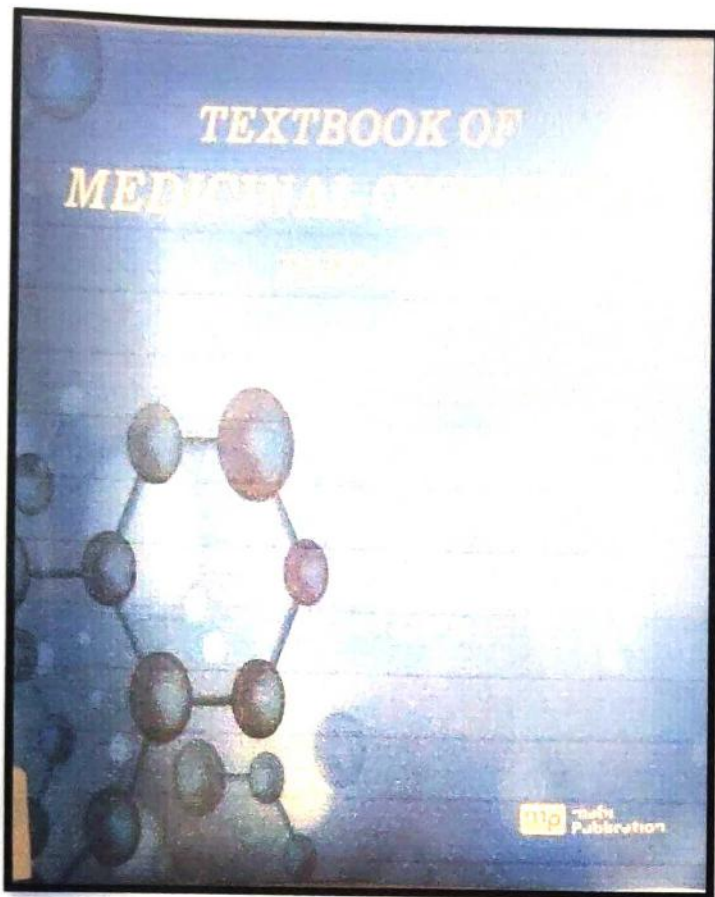
R.D.
PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBARE, PUNE-412 109

Table of Contents

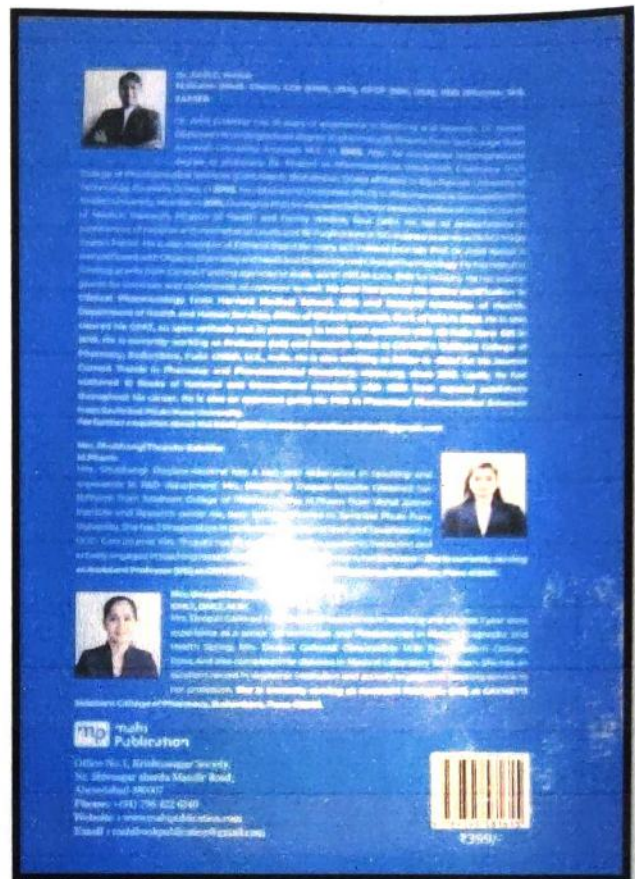
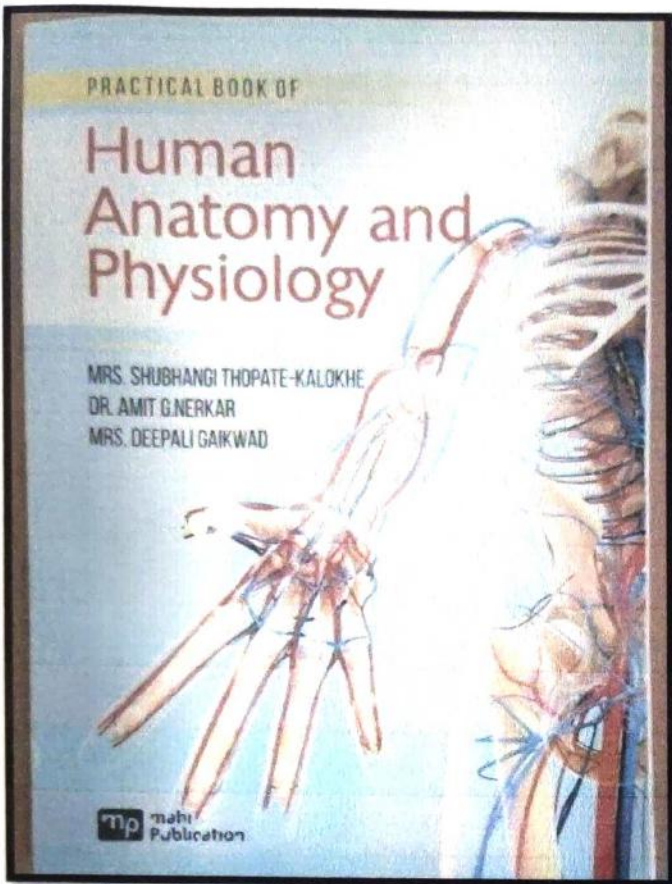
Title of the Chapter	Page No.
Unit I	
1.1 Anti-histaminic Agents	1
1.2 Antineoplastic Agents	31
Unit II	
2.1 Antianginal Agents	64
2.2 Calcium Channel Blockers	67
2.3 Diuretics	71
2.4 Anti-hypertensive Agents	87
Unit III	
3.1 Anti-Arhythmic Drugs	112
3.2 Anti-Hyperlipidaemic Agents	124
3.3 Coagulants and Anticoagulants	140
3.4 Drugs used in Congestive Cardiac Failure	160
Unit-IV	
4.1 Introduction to Steroids	172-210
4.2 Sex hormones	174
4.3 Drugs for erectile dysfunction	180
4.4 Oral contraceptives	191
4.5 Corticosteroids	193
4.6 Thyroid and antithyroid drugs	197
Unit-V	
5.1 Antidiabetic agents	205
5.2 Local Anesthetics	211
	237




PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109



AD
PRINCIPAL
 SIDDHANT COLLEGE OF PHARMACY,
 SUDUMBRE, PUNE-412 109




Content	
PREFACE	3
LABORATORY ORIENTATION	5
SEMESTER-I	
EXPERIMENT NO. 1	
Title: To study different parts of a compound microscope.	11
EXPERIMENT NO. 2	
Title: Microscopic study of epithelial and connective tissue.	15
EXPERIMENT NO. 3	
Title: Microscopic study of muscular and nervous tissue.	19
EXPERIMENT NO. 4	
Title: Identification of Axial Bones.	24
EXPERIMENT NO. 5	
Title: Identification of appendicular bones.	27
EXPERIMENT NO. 6	
Title: Introduction to hemocytometer.	30
EXPERIMENT NO. 7	
Title: Enumeration of white blood cell (WBC) count	34
EXPERIMENT NO. 8	
Title: Enumeration of Red blood cell (RBC) count	42
EXPERIMENT NO. 9	
Title: Determination of bleeding Time	52
EXPERIMENT NO. 10	
Title: Determination of clotting time.	55
EXPERIMENT NO. 11	
Title: Estimation of Hemoglobin content.	57
EXPERIMENT NO. 12	
Title: Determination of blood Group.	61
EXPERIMENT NO. 13	
Title: Determination of Erythrocyte Sedimentation Rate.	64
EXPERIMENT NO. 14	
Title: Determination of Heart Rate and Pulse Rate	67
EXPERIMENT NO. 15	
Title: Determination of Blood Pressure	70
SEMESTER-II	
EXPERIMENT NO. 1	
Aim: To Study the Integumentary System and Special senses using specimen, models etc.	74
EXPERIMENT NO. 2	
Aim: To study the Nervous System using specimen, Models.	80
EXPERIMENT NO. 3	
Aim: To study the endocrine System using specimen and models.	92
EXPERIMENT NO. 4	
Aim: To demonstrate the general neurological examination	96
EXPERIMENT NO. 5	
Aim: To Demonstrate the function of olfactory nerve.	101
EXPERIMENT NO. 6	
Aim: Examine the different types of taste.	103
EXPERIMENT NO. 7	
Aim: To demonstrate the Visual Acuity	106
EXPERIMENT NO. 8	
Aim: To Demonstrate the Reflex Activity	109
EXPERIMENT NO. 9	
Aim: Recording of body temperature	111
EXPERIMENT NO. 10	
Aim: To demonstrate positive and negative feedback mechanism.	114
EXPERIMENT NO. 11	
Aim: Determination of tidal volume & vital capacity by using Hutchinson spirometer	117
EXPERIMENT NO. 12	
Aim: Recording of Body mass index (BMI)	123
EXPERIMENT NO. 13	
Aim: To study of family planning devices and pregnancy diagnosis test	125
EXPERIMENT NO. 14	
Aim: demonstration of total blood count cell analyzer	136



PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109

Book Publication Academic Year 2021-22



TECA PHARMA
A Guide for Pharmacy Students

PCI Syllabus
Sub. Code: BP603T

Herbal Drug Technology

- Third Year B-Pharmacy Sem VI • Covers Entire Syllabus
- Question - Answer Format • Exact Answers & Solutions
- Sample Papers As Per New Question Paper Pattern of PCI Scheme

first edition: feb. 2022
Price: ₹ 260/-
ISBN 978-81-92458-64-0

TECHNICAL PUBLICATIONS
As Up-Think for Knowledge

Dr. Swati N. Deshmukh
Sambhaji K. Budhawale
Sandip G. Laware
Dr. Rajendra S. Bhambar

TECA PHARMA

1. Medicinal Botany I & II
2. Pharmacognosy
3. Herbal Drug Technology
4. Pharmaceutical Microbiology
5. Pharmaceutical Chemistry I
6. Pharmaceutical Chemistry II

Available at all leading booksellers

Download APP on Play Store

Published by:

TECHNICAL PUBLICATIONS

Website: www.TechnicalPublications.org
 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

6312

TECA PHARMA

As per PCI Syllabus

Herbal Drug Technology

Third Year, B. Pharmacy, Semester - VI

Dr. Swati N. Deshmukh
Ph. D., M. Pharm. (Pharmacognosy)
Associate Professor
CAJMET's Siddhant College of Pharmacy
Sudumbre, Pune

Prof. Sambhaji K. Budhawale
M. Pharm. (Pharmacognosy)
Assistant Professor
Rajed Dnyaneshwari's College of Pharmacy
Erand, Pune

Sandip G. Laware
M. Pharm. (Pharmacognosy)
Assistant Professor
P.E.S.'s College of Pharmacy (for Women)
Chinchwad, Nandiv

Dr. Rajendra S. Bhambar
Ph. D., M. Pharm. (Pharmacognosy)
Professor and Principal
SAG's Pharmacy College
Panchwati, Nashik

ISBN 978-81-92458-64-0

TECHNICAL PUBLICATIONS
As Up-Think for Knowledge

SYLLABUS

Herbal Drug Technology (BP 603T)

UNIT-I
Herbs as Raw Materials
Definition of herb, herbal medicine, herbal medicinal product, herbal 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 Hanyurved
b) Preparation and standardization of Ayurvedic formulations via Arisa, Asawa, Ghatika, Churna, Lohya and Bhasma (Chapter - 1)

UNIT-II
Nutraceuticals
General aspects, Market, growth, scope and types of products available in market, Health benefits and role of Nutraceuticals in ailments like Diabetes, diseases, Cancer, Irritable bowel syndrome and various Gastro intestinal diseases
Study of following herbs as health food: Alfalfa, Chlorella, Guggul, Fenugreek, Garlic, Honey, Amla, Ginseng, Ashwagandha, Spirulina
Herbal-Drug and Herb-Food Interactions: General introduction to interactions classification, Study of following drugs and their possible side effects: interactions: Hypertension, kava-kava, Ginkgo biloba, Gingeng, Garlic, Fenugreek, Ephedra. (Chapter - 2)

UNIT-III
Herbal Cosmetics
Sources and description of raw materials of herbal origin used via food oils, waxes, gum resins, perfumes, protective agents, bleaching agents, antioxidants in products such as skin care, hair care and oral hygiene products
Herbal Exipients
Herbal Exipients - Significance of substances of natural origin as excipients - polymers, overesters, binders, diluents, viscosity builders, disintegrants, flavors and preservatives
Herbal Formulations
Conventional herbal formulations like syrups, mixtures and tablets and Novel dosage forms like phytosomes (Chapter - 3)

UNIT-IV
Evaluation of Drugs - WHO and ICH guidelines for the assessment of herbal drugs
Quality testing of herbal drugs
Packaging 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
Regulatory Issues - Regulations in India (ASU, DEAD, ASU, DCC), Regulations of manufacture of ASU drugs - Schedule 2 of Drugs and Cosmetics Act for ASU (Chapter - 4)

UNIT V
General Introduction to Herbal Industry
Herbal drug industry - Present scope and future prospects
Herbal: Account of plant based industries and activities involved in work in industrial and scientific plants in India
GMP (Chapter - 5): Good Manufacturing Practice of Indian Systems of Medicine
a) Requirements of GMP (Schedule - 1) and its objectives
b) Infrastructural requirements, working space, storage area, machinery and equipment, indoor operating procedures, health and hygiene, documentation and records (Chapter - 5)

SEAL
Sudumbre,
Pune-412 109.

CAJMET'S SIDDHANT COLLEGE OF PHARMACY

PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109

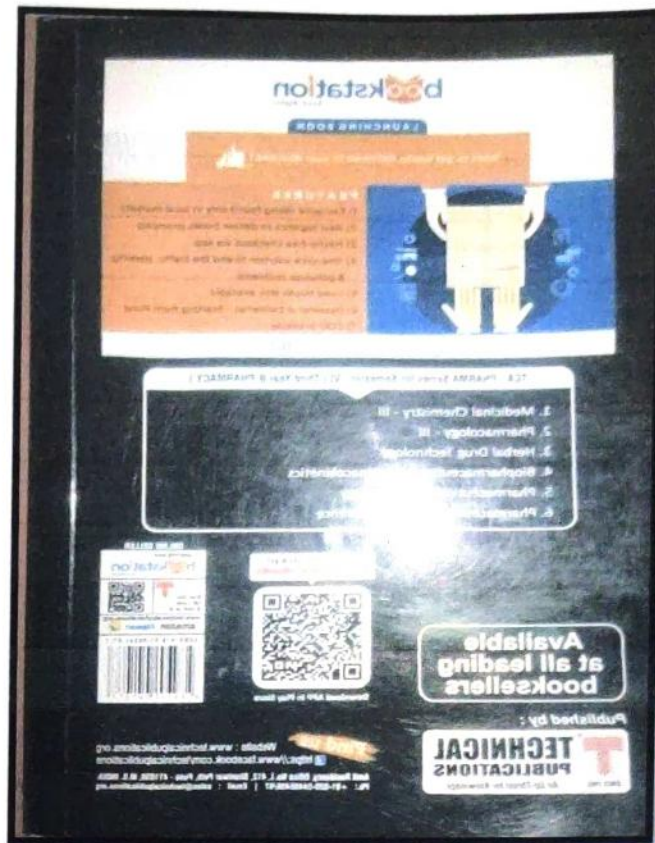
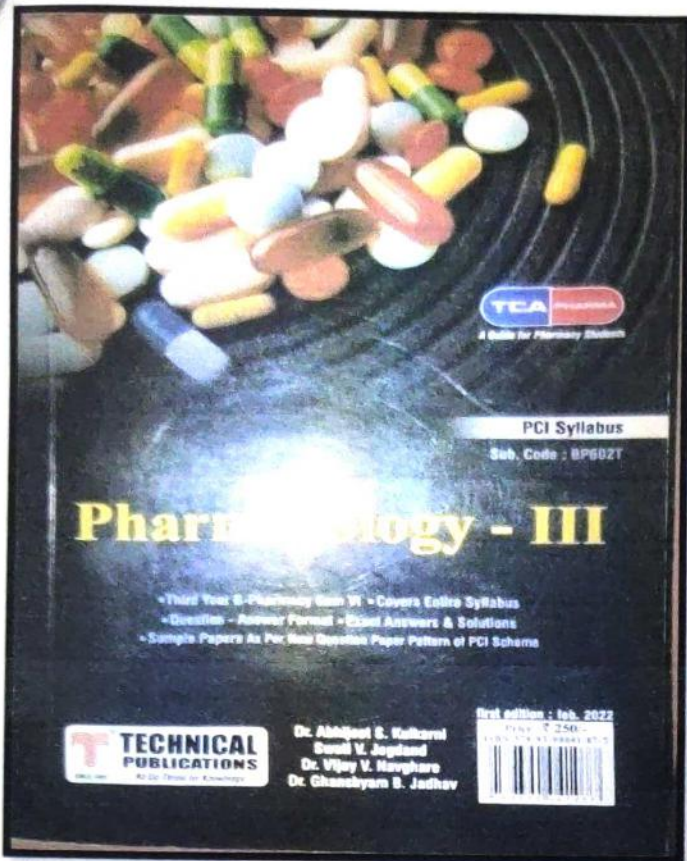


Table of Contents

UNIT-I	
Chapter-1 Pharmacology of Drugs Acting on Respiratory System	(1-1) to (1-27)
1.1 Anti-asthmatic Drugs	1-4
1.2 Drugs Used in Management of COPD	1-14
1.3 Expectorants and Mucosolytics	1-18
1.4 Nasal Decongestants	1-21
1.5 Respiratory Stimulants	1-25
Chapter 2 Pharmacology of Drugs Acting on the Gastrointestinal Tract	(2-1) to (2-19)
2.1 Antisecretory Agents	2-1
2.2 Constipation and Diarrhoea	2-7
2.3 Appetite Stimulants and Suppressants	2-11
2.4 Digestants and Carminatives	2-15
2.5 Emetics and Anti-emetics	2-15
UNIT-II	
Chapter-3 Chemotherapy - I	(3-1) to (3-49)
3.1 General Principles of Chemotherapy	3-1
3.2 Sulphonamide and Cotrimoxazole	3-5
3.3 Antibiotics	3-52
UNIT-III	
Chapter-4 Chemotherapy - II	(4-1) to (4-81)
4.1 Antitubercular Agents	4-1
4.2 Antileprotic Agents	4-20
4.3 Antifungal agents	4-27
4.4 Anticancer Drugs	4-43
4.5 Antischistomials	4-51
4.6 Antosmiasis Drugs	4-56
4.7 Antelmintic Agents	4-72
UNIT-IV	
Chapter-5 Chemotherapy - III	(5-1) to (5-26)
5.1 Urinary Tract Infections and Sexually Transmitted Diseases	5-1
5.2 Chemotherapy of Malignancy	5-3




PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109

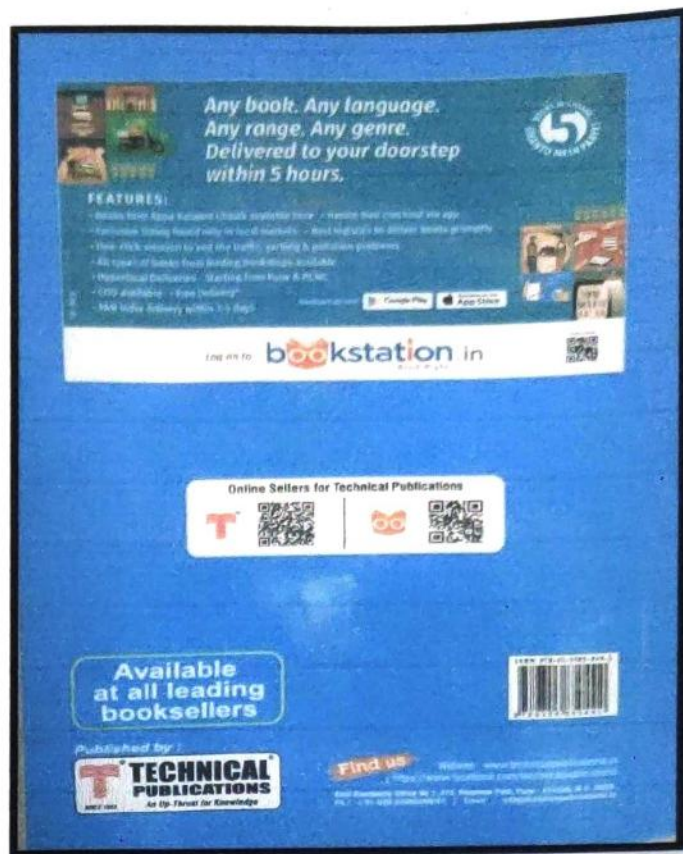
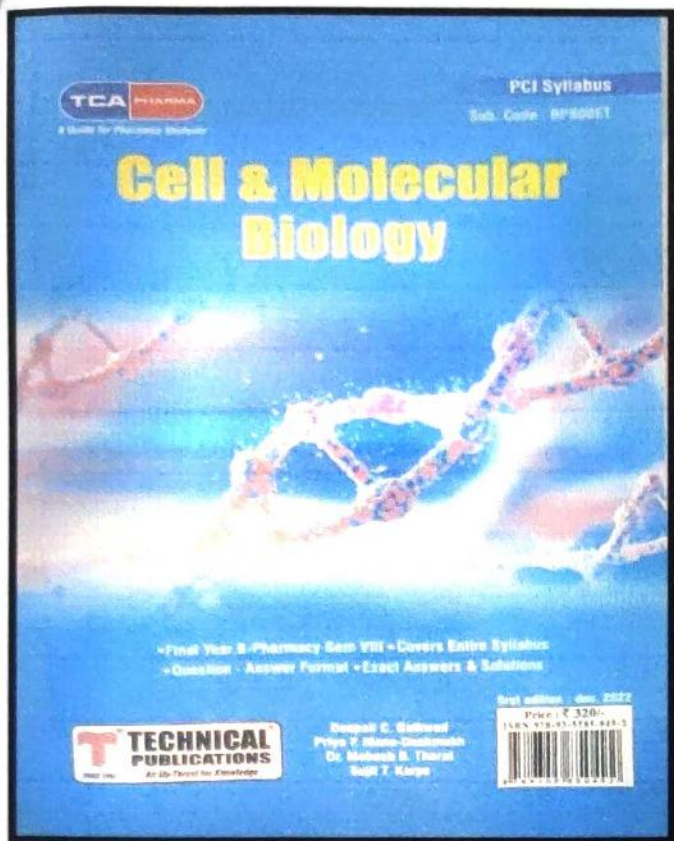

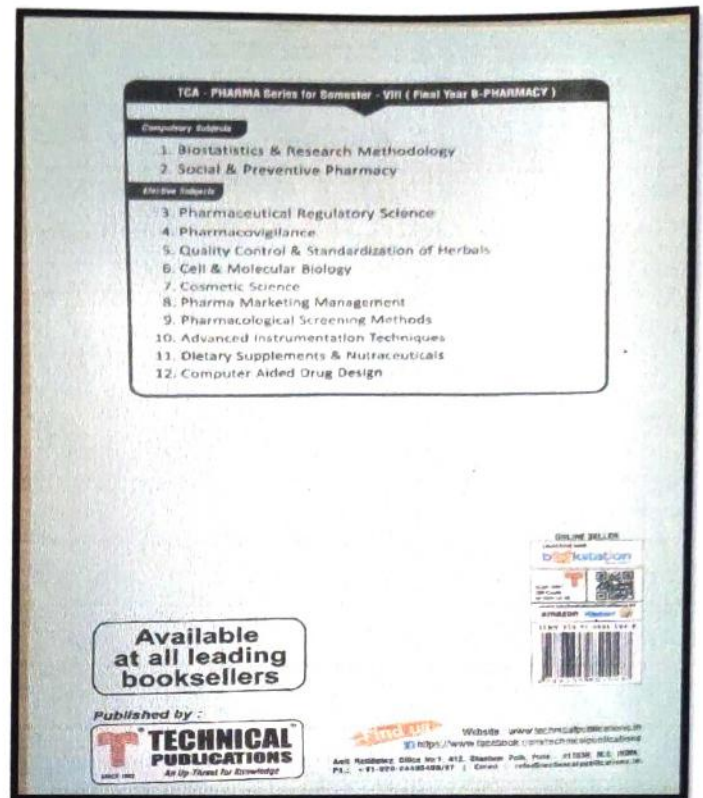
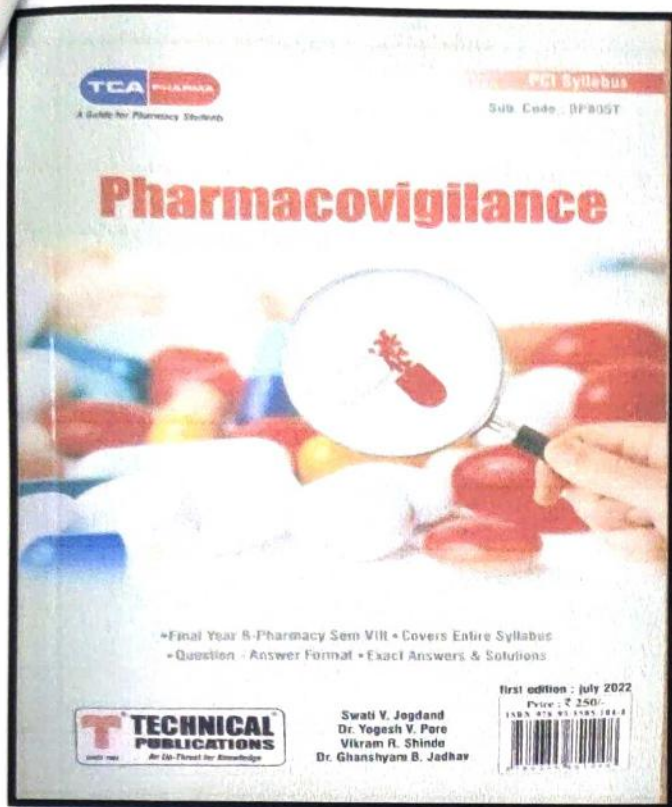


TABLE OF CONTENTS	
Unit - I	
Chapter - 1	Introduction to Cell and Molecular Biology (1 - 1) to (1 - 43)
1.1	Introduction to Cell and Molecular Biology 1 - 1
1.2	History and Summation 1 - 6
1.3	Properties of Cells and Cell Membrane 1 - 10
1.4	Prokaryotic versus Eukaryotic 1 - 18
1.5	Cellular Reproduction 1 - 25
1.6	Chemical Foundations - An Introduction and Reactions (Types) 1 - 36
Unit - II	
Chapter 2	DNA and RNA (2 - 1) to (2 - 50)
2.1	DNA and the Flow of Molecular Information 2 - 1
2.2	DNA Functioning 2 - 7
2.3	DNA and RNA 2 - 13
2.4	Types of RNA 2 - 15
2.5	Transcription and Translation 2 - 20
Unit - III	
Chapter 3	Proteins (3 - 1) to (3 - 54)
3.1	Proteins : Defined and Amino Acids 3 - 1
3.2	Protein Structure 3 - 5
3.3	Regularities in Protein Pathways 3 - 14
3.4	Cellular Processes 3 - 30
3.5	Positive Control and Significance of Protein Synthesis 3 - 42
Unit - IV	
Chapter 4	Genetics (4 - 1) to (4 - 62)
4.1	Introduction to Genetics and Science of Genetics 4 - 1
4.2	Transgenics and Genomic Analysis 4 - 23
4.3	Cell Cycle Analysis 4 - 35
4.4	Mitosis and Meiosis 4 - 44
4.5	Cellular Activities and Checkpoints 4 - 56
Unit - V	
Chapter 5	Cell Signaling (5 - 1) to (5 - 63)
5.1	Introduction 5 - 1
5.2	Receptors for Cell Signals 5 - 3
5.3	Signaling Pathways 5 - 24
5.4	Misregulation of Signaling Pathways 5 - 56
5.5	Protein-Kinases : Functioning 5 - 57




PRINCIPAL
 SIDDHANT COLLEGE OF PHARMACY,
 SUDUMBRE, PUNE-412 109



Unit IV
Safety data generation

- Pre clinical phase
- Clinical phase
- Post approval phase (PMS)

ICH Guidelines for Pharmacovigilance

- Organization and objectives of ICH
- Expedited reporting
- Individual case safety reports
- Periodic safety update reports
- Post approval expedited reporting
- Pharmacovigilance planning
- Good clinical practice in pharmacovigilance studies (Chapter - 4)

Unit V
Pharmacogenomics of adverse drug reactions

- Genetics related ADR with example focusing PK parameters.

Drug safety evaluation in special population

- Paediatrics
- Pregnancy and lactation
- Geriatrics

CIOMS

- CIOMS Working Groups
- CIOMS Form

CDSO (India) and Pharmacovigilance

- D&C Act and Schedule Y
- Differences in Indian and global pharmacovigilance requirements (Chapter - 5)

TABLE OF CONTENTS

Unit - I

Chapter - 1 Introduction to Pharmacovigilance, ADR and Basic Terminologies (1 - 1) to (1 - 44)


- 1.1 Introduction to Pharmacovigilance 1 - 1
- 1.2 Introduction to Adverse Drug Reactions. 1 - 9
- 1.3 Basic Terminologies Used in Pharmacovigilance. 1 - 33

Unit - II

Chapter 2 Drug and Disease Classification, Dictionaries and Coding, Information Resources, Establishing Pharmacovigilance Programme (2 - 1) to (2 - 51)


- 2.1 Drug and Disease Classification 2 - 1
- 2.2 Drug Dictionaries and Coding in Pharmacovigilance 2 - 8
- 2.3 Information Resources in Pharmacovigilance 2 - 22
- 2.4 Establishing Pharmacovigilance Programme 2 - 36




PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109

TCA PHARMA
A Guide for Pharmacy Students

PCI Syllabus
Sub. Code : BP605T



Pharmaceutical Biotechnology

• Third Year B-Pharmacy Sem VI • Covers Entire Syllabus
• Question - Answer Format • Exact Answers & Solutions
• Sample Papers As Per New Question Paper Pattern of PCI Scheme

first edition : feb. 2022
Price : ₹ 270/-
ISBN 978-93-90450-73-7


TECHNICAL PUBLICATIONS
An Up-Thrust for Knowledge

Deepali C. Galkwad
Dr. Rajkumar S. Moon
Rama Shukla
Rohit R. Sarda

bookstation
Book Right!

LAUNCHING SOON

Want to get books delivered to your doorstep?




FEATURES

- Personalized delivery based on your location
- Best delivery to avoid breakage
- Single time delivery for all
- Fully insured against loss and theft
- Delivery to residential addresses
- Free books for students
- Free returns

TCA PHARMA Series for Semester VI | Third Year B-PHARMACY |

1. Medicinal Chemistry - III
2. Pharmacology - III
3. Herbal Drug Technology
4. Biopharmaceutics & Pharmacokinetics
5. Pharmaceutical Biotechnology
6. Pharmaceutical Quality Assurance

Save 10% on every book
Free sample eBooks



Download APP to Play Store

Available at all leading booksellers

Published by:

TECHNICAL PUBLICATIONS
An Up-Thrust for Knowledge

Website : www.technicalpublications.org
© 2022 / www.facebook.com/technicalpublications

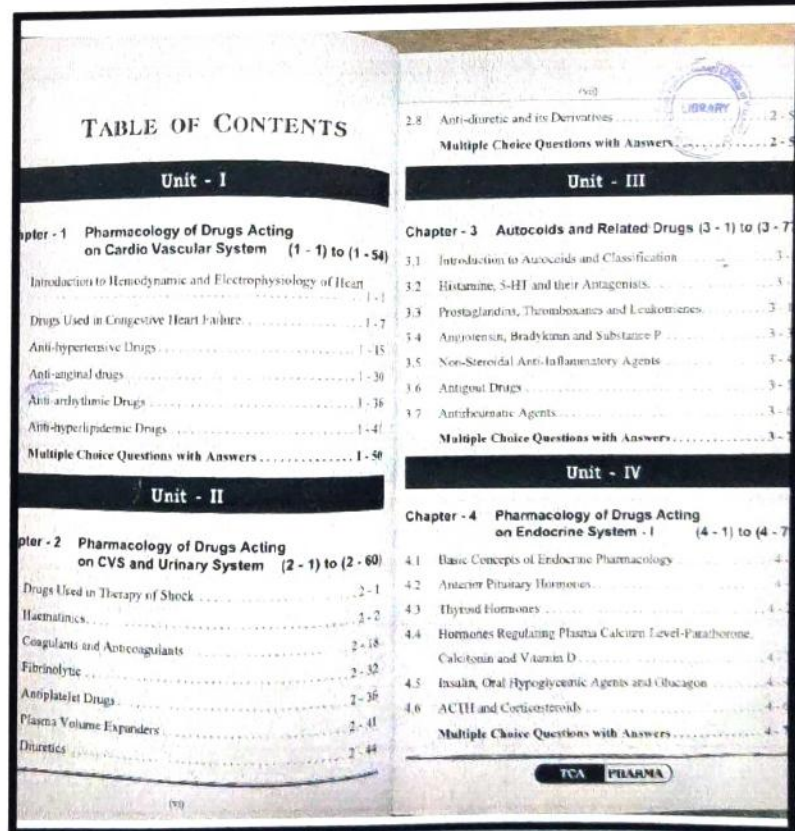
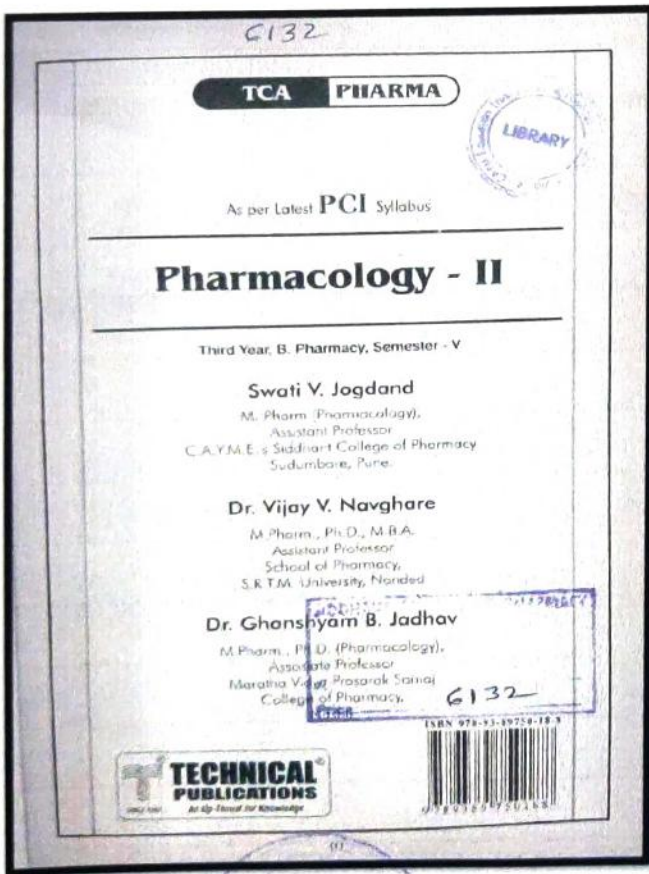
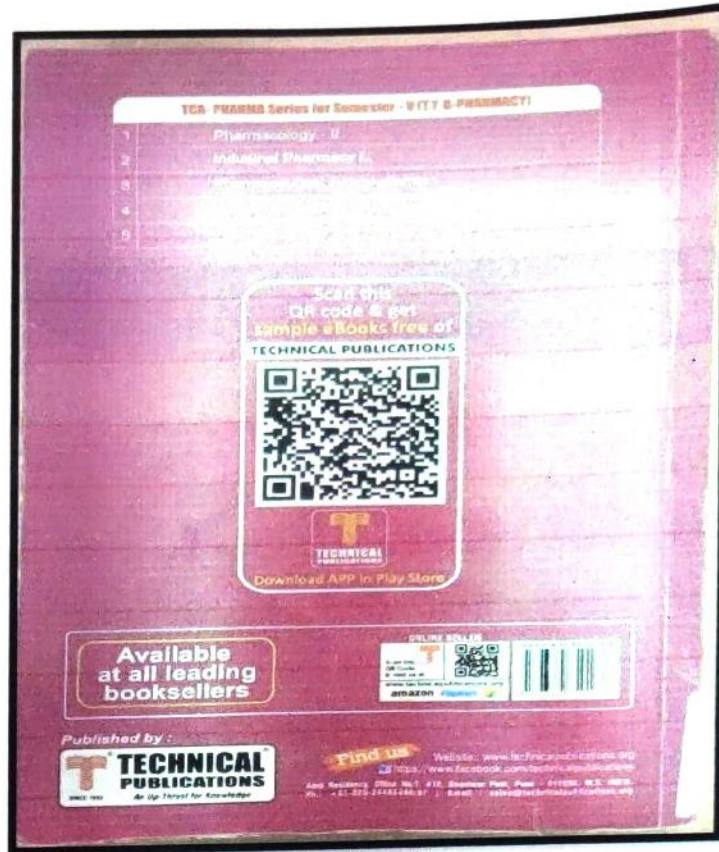
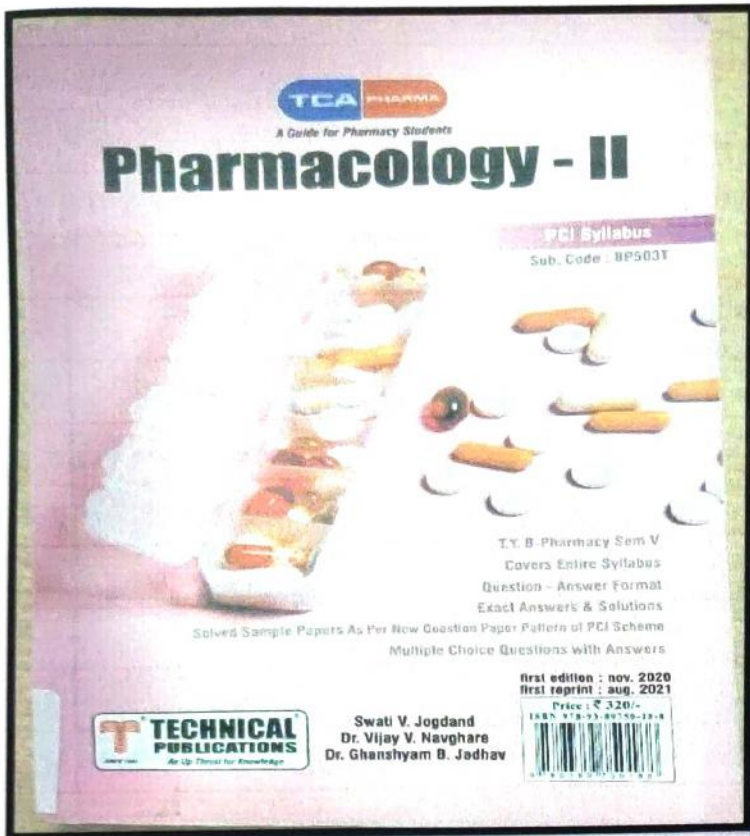
APRIL 2022, OFFICE No.1, P.O. Siddhant Park, Pune - 411004, INDIA
Ph. : +91-20-2420416/17 | Email : sales@technicalpublications.org

Table of Contents

UNIT-I	
Chapter-1 Enzyme Technology	(1-1) to (1-40)
1.1 Brief Introduction to Biotechnology with Reference to Pharmaceutical Sciences	1-1
1.2 Enzyme Biotechnology	1-3
1.3 Biosensors	1-7
1.4 Brief Introduction to Protein Engineering	1-14
1.5 Use of Microbes in Industry	1-22
1.6 Basic Principles of Genetic Engineering	1-39
UNIT-II	
Chapter-2 Re-combinant DNA Technology	(2-1) to (2-30)
2.1 Study of Cloning Vectors, Restriction Endonucleases and DNA Ligase	2-1
2.2 Recombinant DNA Technology, Applications of Genetic Engineering in Medicine	2-14
2.3 Applications of r-DNA Technology and Genetic Engineering	2-19
2.4 Brief Introduction to PCR	2-20
UNIT-III	
Chapter-3 Immunology	(3-1) to (3-38)
3.1 Types of Immunity	3-1
3.2 Structure of Immunoglobulins	3-5
3.3 Structure and Function of MHC	3-10
3.4 Hypersensitivity Reactions	3-14
3.5 Immune Stimulation and Immune Suppression	3-20
3.6 General Method of Preparation	3-27
3.7 Storage Conditions and Stability of Official Vaccines	3-33
3.8 Hybridoma Technology	3-35
3.9 Blood Product and Plasma Substituent	3-38
UNIT-IV	
Chapter-4 Immunoblotting Techniques and Microbial Genetics	(4-1) to (4-54)
4.1 Immunoblotting Techniques	4-1
4.2 Genetic Organization of Eukaryotes and Prokaryotes	4-17
4.3 Microbial Genetics	4-21
4.4 Introduction to Microbial Biotechnology	4-44
4.5 Mutation	4-51

Stamp: Siddhant College of Pharmacy, Pune-411008

Stamp: PRINCIPAL, SIDDHANT COLLEGE OF PHARMACY, SIDDHANT PARK, PUNE-411008





PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109

TCA PHARMA
A Guide for Pharmacy Students

PCI SYLLABUS

PHARMACOGNOSY & PHYTOCHEMISTRY-I

- S.Y. B-Pharmacy Sem IV
- Covers Entire Syllabus
- Question - Answer Pattern
- Exact Answers & Solutions
- Solved Sample Papers As Per New Question Paper Pattern of PCI Scheme
- Multiple Choice Questions with Answers




first edition : jan. 2020
first reprint : feb. 2021


Price: ₹ 220/-
ISBN: 978-81-943349-4-7

TECHNICAL PUBLICATIONS
An Up-Thrust for Knowledge

Dr. Rahul K. Dumbre
Dr. Ruksana Abdul Rub
Dr. Swati H. Deshmukh
Amruta N. Avalaskar



TCA-PHARMA Series for Semester - IV
(S.Y. B-PHARMACY)



Available at all leading booksellers

ONLINE SELLER
Scan this QR Code or visit us at
www.technicalpublications.org
amazon Flipkart

ISBN 978-81-943349-4-7

Published by:
TECHNICAL PUBLICATIONS
An Up-Thrust for Knowledge

Find us
Website: www.technicalpublications.org
https://www.facebook.com/technicalpublications
And Requests: Office No.2, 472, Shivajinagar, Pune - 411004, M.S. India.
Ph: +91-20-2443349/52, Fax: +91-20-2443357
Email: www.technicalpublications.org, Website: www.technicalpublications.org

TABLE OF CONTENTS

Unit - I	
Chapter - 1 Pharmacognosy : Scope, Potential and Quality Control (1 - 1) to (1 - 115)	
1.1 Introduction to Pharmacognosy	1 - 1
1.1.1 Definition, History, Scope and Development of Pharmacognosy	1 - 1
1.1.2 Sources of Drugs	1 - 7
1.1.3 Organized and Unorganized Drugs	1 - 11
1.2 Classification of Drugs	1 - 11
1.3 Quality Control of Drugs of Natural Origin	1 - 26
1.3.1 Adulteration of Drugs of Natural Origin/Herbal Drugs	1 - 26
1.3.2 Evaluation of Crude Drugs	1 - 37
1.3.2.1 Organoleptic Evaluation or Morphological Evaluation	1 - 40
1.3.2.2 Microscopic Evaluation	1 - 50
1.3.2.3 Physical Evaluation	1 - 58
1.3.2.4 Chemical Evaluation	1 - 73
1.3.2.5 Biological Evaluation	1 - 83
1.4 Quantitative Microscopy	1 - 89
Multiple Choice Questions with Answers	1 - 104
Unit - II	
Chapter - 2 Cultivation, Collection and Processing of Medicinal Plants (2 - 1) to (2 - 53)	
2.1 Cultivation of Medicinal Plants	2 - 1
2.2 Collection of Drugs of Natural Origin	2 - 6
2.3 Factors Influencing Cultivation of Medicinal Plants	2 - 13
2.4 Plant Hormones and their Applications	2 - 20
2.5 Genetics as Applied to Medicinal Plants	2 - 26
2.6 Conservation of Medicinal Plants	2 - 37
Multiple Choice Questions with Answers	2 - 50
Unit - III	
Chapter - 3 Plant Tissue Culture (3 - 1) to (3 - 26)	
3.1 Introduction to PTC	3 - 1
3.2 Historical Development of Plant Tissue Culture	3 - 3
3.3 Types of Cultures	3 - 5
3.4 Nutritional Requirement for Growth and Maintenance of PTC	3 - 14
3.5 Applications of PTC in Pharmacognosy	3 - 19
3.6 Edible Vaccines	3 - 20
Multiple Choice Questions with Answers	3 - 23



RD
PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109

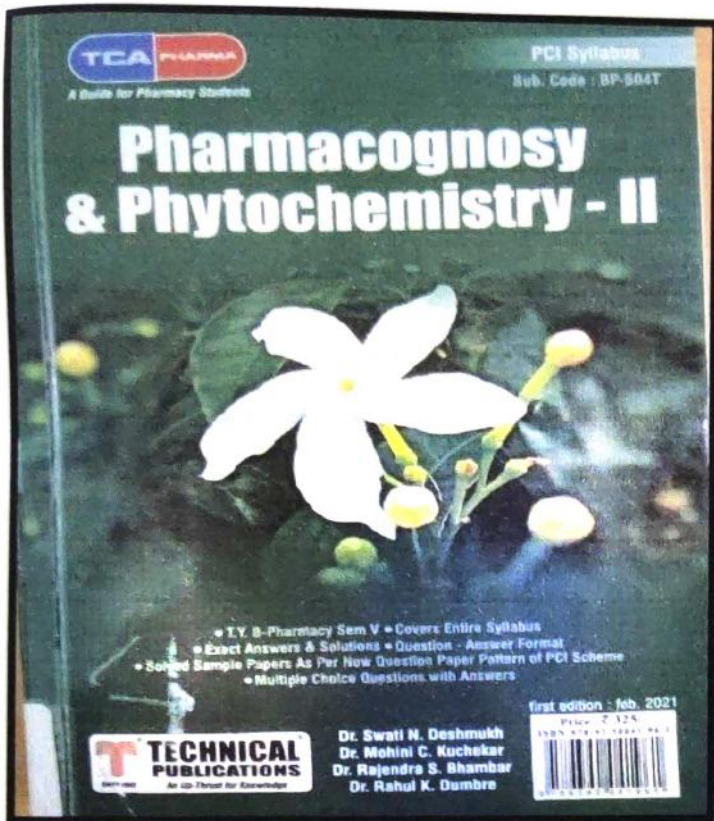

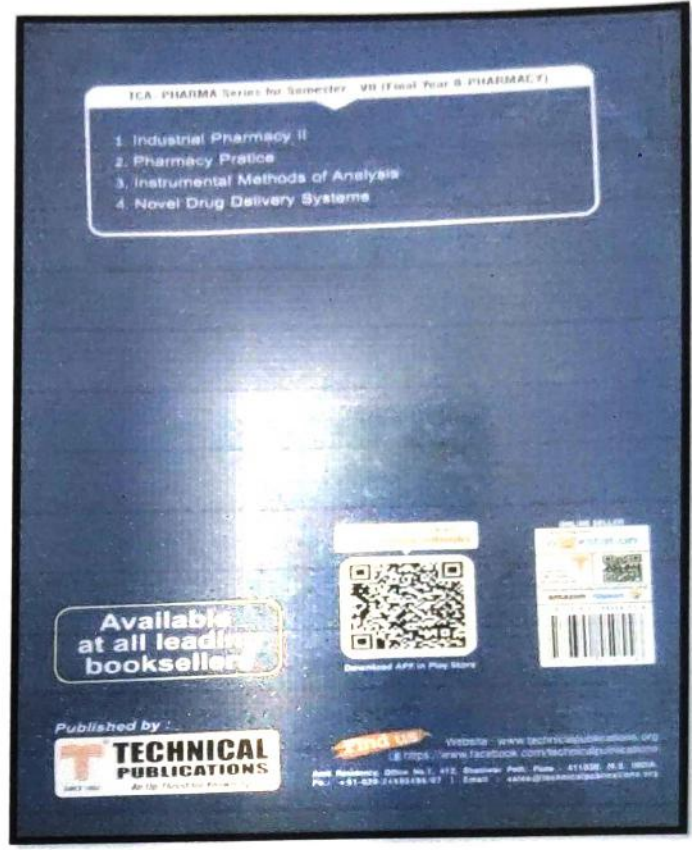
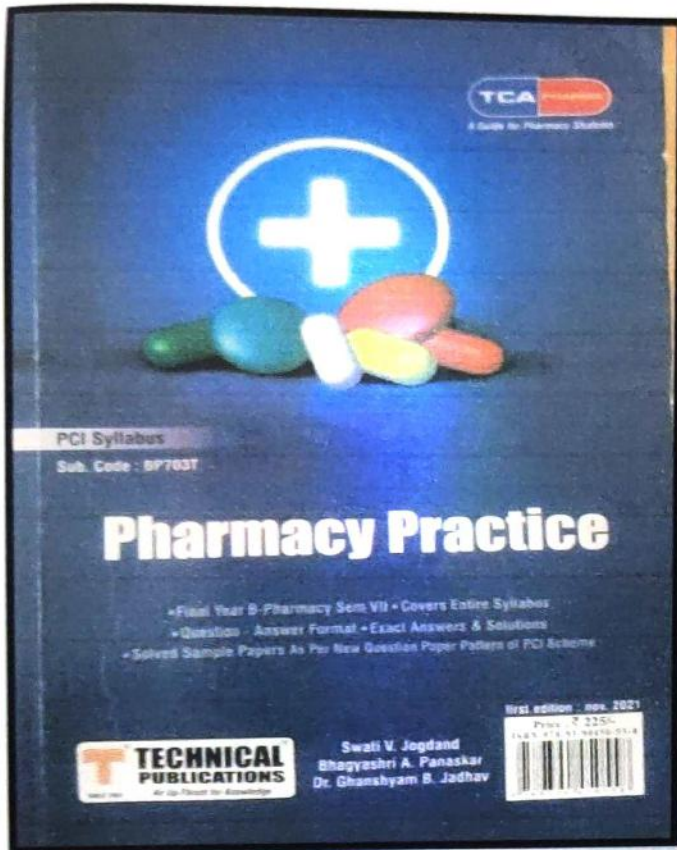


TABLE OF CONTENTS	
Unit - I	
Chapter 1	Metabolic Pathways in Higher Plants and their Determination (1 - 1) to (1 - 18)
1.1	Brief Study of Basic Metabolic Pathways and Formation of Different Secondary Metabolites 1-1
1.2	Study of Utilization of Radioactive Isotopes in the Investigation of Biogenetic Studies 1-9
	Multiple Choice Questions with Answers 1-15
Unit - II	
Chapter 2	Secondary Metabolites (2 - 1) to (2 - 187)
2.1	Alkaloids 2-1
2.2	Phenylpropanoids and Flavonoids 2-38
2.3	Steroids, Cardiac Glycosides and Triterpenoids 2-54
2.4	Volatile Oils 2-69
2.5	Tannins 2-89
2.6	Resins 2-105
2.7	Glycosides 2-129
2.8	Iridoids, Other Terpenoids and Naphthaquinones 2-149
	Multiple Choice Questions with Answers 2-165
Unit - III	
Chapter 3	Isolation, Identification and Analysis of Phytoconstituents (3 - 1) to (3 - 45)
3.1	Terpenoids 3-1
3.2	Glycosides 3-20
3.3	Alkaloids 3-29
3.4	Resins 3-39
	Multiple Choice Questions with Answers 3-44
Unit - IV	
Chapter 4	Industrial Production, Estimation and Utilization of Phytoconstituents (4 - 1) to (4 - 44)
4.1	Forskolin 4-1
4.2	Sennoside 4-4
4.3	Diosgenin 4-8
4.4	Artemisinin 4-11
4.5	Digoxin 4-15
4.6	Atropine 4-19
4.7	Podophyllotoxin 4-22
4.8	Caffeine 4-27
4.9	Taxol 4-28




PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109

Book Publication Academic Year 2019-20




SYLLABUS	
Pharmacy Practice (BP 703T)	
<p>Unit I :</p> <p>a) Hospital and its organization Definition, Classification of hospital - Primary, Secondary and Tertiary hospitals, Classification based on clinical and non-clinical basis, Organization, Structure of a Hospital, and Medical staffs involved in the hospital and their functions.</p> <p>b) Hospital pharmacy and its organization Definition, functions of hospital pharmacy, Organization structure, Location, Layout and staff requirements, and Responsibilities and functions of hospital pharmacists.</p> <p>c) Adverse drug reaction Classifications - Excessive pharmacological effects, secondary pharmacological effects, idiosyncrasy, allergic drug reactions, genetically determined toxicity, toxicity following sudden withdrawal of drugs, Drug interaction- beneficial interaction, adverse interactions, and pharmacokinetic drug interactions. Methods for detecting drug interactions, spontaneous case reports and recall linkage studies, and Adverse drug reaction reporting and management.</p> <p>d) Community Pharmacy Organization and structure of retail and wholesale drug store, types and design. Legal requirements for establishment and maintenance of a drug store. Dispensing of proprietary products, maintenance of records of retail and wholesale drug store. (Chapter - 1)</p>	<p>and Drug list, preparation and revision, and addition and deletion of drug from hospital formulary.</p> <p>e) Therapeutic drug monitoring Need for Therapeutic Drug Monitoring, Factors to be considered during the Therapeutic Drug Monitoring, and Indian scenario for Therapeutic Drug Monitoring.</p> <p>d) Medication adherence Causes of medication non-adherence, pharmacist role in the medication adherence, and monitoring of patient medication adherence.</p> <p>e) Patient medication history interview Need for the patient medication history interview, medication interview forms.</p> <p>f) Community pharmacy management Financial, materials, staff, and infrastructure requirements. (Chapter - 2)</p>
<p>Unit II :</p> <p>a) Drug distribution system in a hospital Dispensing of drugs to inpatients, types of drug distribution system, charging policy and labeling, Dispensing of drugs to ambulatory patients, and Dispensing of controlled drugs.</p> <p>b) Hospital formulary Definition, objectives, and Formulation of hospital formulary</p>	<p>Unit III :</p> <p>a) Pharmacy and therapeutic committee Organization, functions, Policies of the pharmacy and therapeutic committee in, including drugs into formulary, inpatient and outpatient prescription, automatic stop order, and emergency drug list preparation.</p> <p>b) Drug information services Drug and Poison information centre, Sources of drug information, Continued services, and storage and retrieval of information.</p> <p>c) Patient counseling Definition of patient counseling; steps involved in patient counseling, and Special cases that require the pharmacist.</p> <p>d) Education and training program in the hospital Role of pharmacist in the education and training program, Internal and external training program, Services to the nursing professionals, Code of ethics for community pharmacy, and Role of pharmacist in the interdepartmental communication and community health education.</p> <p>e) Prescribed medication order and communication skills Prescribed medication order interpretation and legal requirements, and Communication skills- communication with physicians and patients. (Chapter - 3)</p>



KAD
PRINCIPAL
 SIDDHANT COLLEGE OF PHARMACY,
 SUDUMBRE, PUNE-412 109


Book Publication Academic Year 2018-19




Pathophysiology

- ◆ F.Y. B-PHARMACY SEM II
- ◆ COVERS ENTIRE SYLLABUS
- ◆ QUESTION - ANSWER FORMAT
- ◆ EXACT ANSWERS & SOLUTIONS
- ◆ MCQs WITH ANSWERS
- ◆ SOLVED SAMPLE QUESTION PAPERS OF PCI SCHEME
- ◆ AS PER NEW QUESTION PAPER PATTERN OF PCI SCHEME
- ◆ SOLVED UNIVERSITY QUESTION PAPERS JUNE-17, APRIL-18, MAY-19

PCI SYLLABUS






At the Heart of Knowledge


Neelam L. Dashputre
Swati V. Jogdand

TCA-PHARMA Series for Semester - II (F.Y. B-PHARMAC)




Available at all leading booksellers

ONLINE SELLER




Scan the QR Code or visit us at
www.technicalpublications.org

Price: ₹ 280/-



Published by:



TECHNICAL PUBLICATIONS
An Up-Thrust for Knowledge

Find us Website: www.technicalpublications.org
<https://www.facebook.com/technicalpublications>
 2nd Floor, 20th Mile, 422, Shivajinagar, Pune - 411004, M.S., INDIA
 Ph: +91 20 2449484/87, Telex: +91-20 2449484
 Email: sales@technicalpublications.org, www@technicalpublications.org

TABLE OF CONTENTS	
Unit - I	
Chapter - 1 Basic Principles of Cell Injury and Adaptation and Introduction to Inflammation (1 - 1) to (1 - 75)	
1.1 Basic Principle of Cell Injury and Adaptation and Definitions	1 - 1
1.1.1 Introduction and Definitions	1 - 1
1.1.2 Homeostasis	1 - 2
1.1.3 Components and Types of Feedback System	1 - 3
1.1.4 Cause of Cell Injury	1 - 12
1.1.5 Pathogenesis and Mechanisms of Cell Injury	1 - 14
1.1.6 Morphology of Cell Injury	1 - 19
1.1.7 Cell Swelling	1 - 21
1.1.8 Intracellular Accumulations	1 - 24
1.1.9 Calcification or Extracellular Accumulations of Calcium	1 - 30
1.1.10 Enzyme Leakage and Cell Death or Apoptosis	1 - 31
1.1.11 Acids and Alkalosis	1 - 38
1.1.12 Autoantibodies Immuneance	1 - 41
1.2 Basic Mechanisms involved in the Process of Inflammation and Repair	1 - 43
1.2.1 Inflammation	1 - 47
1.2.2 Clinical Signs of Inflammation	1 - 47
1.2.3 Different Types of Inflammation	1 - 47
1.2.4 Morphology of Inflammation	1 - 47
Unit - II	
Chapter - 2 CVS, Respiratory and Renal System (2 - 1) to (2 - 133)	
2.1 Overview of Heart Disease	2 - 1
2.1.1 Hypertensive Heart Disease	2 - 2
2.1.2 Congestive Heart Failure	2 - 14
2.1.3 Ischemic Heart Disease (Angina, Myocardial Infarction, Atherosclerosis and Arteriosclerosis)	2 - 24
2.2 Respiratory System	2 - 66
2.2.1 Chronic Bronchitis	2 - 68
2.2.2 Emphysema	2 - 74
2.2.3 ASTHMA (Bronchial Asthma)	2 - 85
2.2.4 Bronchiectasis	2 - 89
2.3 Renal System	2 - 93
2.3.1 Acute Renal Failure (ARF)	2 - 95
2.3.2 Chronic Renal Failure (CRF)	2 - 102
Multiple Choice Questions with Answers	2 - 113
Unit - III	
Chapter - 3 Haematological, Endocrine, Nervous and GI System (3 - 1) to (3 - 165)	
3.1 Haematological Diseases	3 - 1



RD
PRINCIPAL
 SIDDHANT COLLEGE OF PHARMACY,
 SUDUMBRE, PUNE-412 109

TCA PHARMA

HUMAN ANATOMY AND PHYSIOLOGY-II

FY. B-PHARMACY SEM II
COVERS ENTIRE SYLLABUS
QUESTION - ANSWER FORMAT
MCOs WITH ANSWERS
EXACT ANSWERS & SOLUTIONS
SOLVED SAMPLE QUESTION PAPERS OF PCI SCHEME
AS PER NEW QUESTION PAPER PATTERN OF PCI SCHEME
SOLVED UNIVERSITY QUESTION PAPERS JUNE-17, APRIL-18, MAY-19

PCI SYLLABUS

TECHNICAL PUBLICATIONS
An Up-Thrust for Knowledge

Swati V. Jogdand
Neelam L. Dashputre
Dr. Upama N. Trivedi

TCA-PHARMA Series for Semester - II (F.Y. B-PHARMACY)

Available at all leading booksellers

ONLINE SELLER

Scan the QR Code to visit us at www.technicalpublications.org

Price: ₹ 250/- ISBN: 978-81-312-0912-1

Published by: **TECHNICAL PUBLICATIONS**
An Up-Thrust for Knowledge

Website: www.technicalpublications.org
<https://www.facebook.com/technicalpublications>
 And Headquarters Office No.1, 412, Shivajinagar, Pune - 411004, M.S. INDIA
 Ph. +91-20-2445449, 2445451, 2445452 Fax. +91-20-2445449
 Email: technicalpub@rediffmail.com Website: www.technicalpublications.org

TABLE OF CONTENTS

Unit - I	
Chapter - 1	Nervous System (1 - 1) to (1 - 28)
1.1	Organization of Nervous system, Neuron Neuroglia 1 - 1
1.2	Classification and Properties of Nerve Fibres 1 - 8
1.3	Electrophysiology, Action Potential, Nerve Impulse, Receptors, Synapse, Neurotransmitters 1 - 7
1.4	Structure of Meninges and Vesicles of Brain and CSF 1 - 11
1.5	Structure and Functions of Brain and Spinal Cord 1 - 14
1.6	Reflex Arc 1 - 22
	Multiple Choice Questions with Answers 1 - 24
Unit - II	
Chapter - 2	Digestive System (2 - 1) to (2 - 44)
2.1	Introduction to Digestive System 2 - 1
2.2	Anatomy of GI Tract with Special Reference to Anatomy and Functions of Stomach 2 - 12
2.3	Acid Production in Stomach 2 - 14
2.4	Regulation of Acid Production through Parasympathetic Nervous System 2 - 16
2.5	Pepsin Role in Digestive System 2 - 18
2.6	Small and Large Intestine 2 - 19
2.7	Anatomy and Function of Salivary Glands 2 - 25
2.8	Pancreas and Liver 2 - 28
2.9	Movements of GIT 2 - 33
2.10	Digestion and Absorption of Nutrients 2 - 34
2.11	Disorder of GIT 2 - 36
	Multiple Choice Questions with Answers 2 - 39
Chapter - 3	Energetics (3 - 1) to (3 - 6)
3.1	Formation and Role of ATP 3 - 1
3.2	Formation and Role of Creatinine 3 - 2
3.3	Basal Metabolic Rate (BMR) 3 - 4
	Multiple Choice Questions with Answers 3 - 5
Unit - III	
Chapter - 4	Respiratory System (4 - 1) to (4 - 39)
4.1	Anatomy of Respiratory System 4 - 1
4.1.1	The Nose and its Adjacent Structures 4 - 1
4.1.2	Pharynx 4 - 5
4.1.3	Larynx: Mechanism of Voice Production 4 - 7
4.1.4	Trachea 4 - 10
4.1.5	Bronchi and Bronchial Tree 4 - 11
4.1.6	Lungs 4 - 13
4.2	Mechanism of Respiration (Exchange of Oxygen and Carbon Dioxide) 4 - 17
4.3	Regulation of Respiration 4 - 23



Red
PRINCIPAL
SUDJANT COLLEGE OF PHARMACY,
SUDJAMBRE, PUNE-412 109

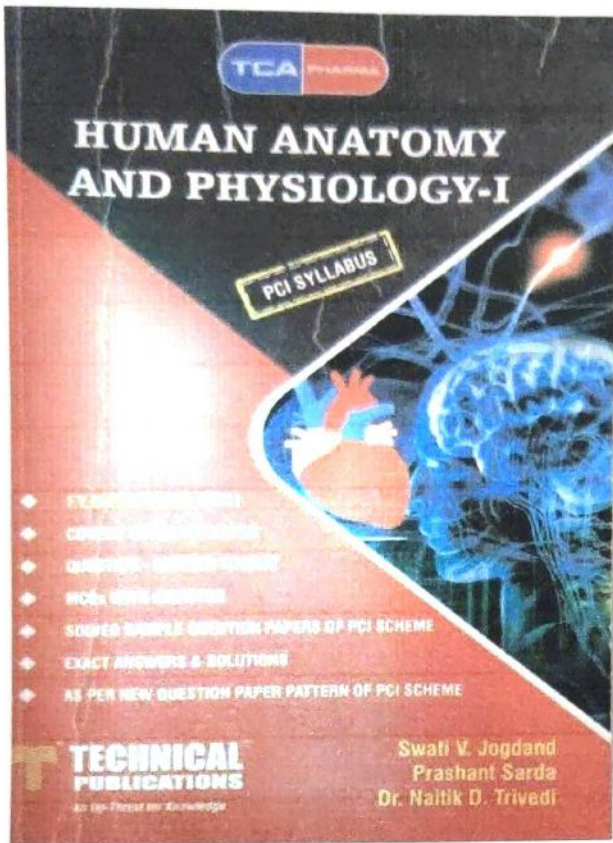


TABLE OF CONTENTS	
Unit - I	
Chapter - 1 Introduction to Human Body (1 - 1) to (1 - 11)	
1.1 Definition and Scope of Anatomy and Physiology	1 - 1
1.2 Levels of Structural Organization and Body Systems	1 - 2
1.3 Basic Life Processes	1 - 4
1.4 Homeostasis	1 - 5
1.5 Basic Anatomical Terminology	1 - 6
Multiple Choice Questions with Answers	1 - 10
Chapter - 2 Cellular Level of Organization (2 - 1) to (2 - 35)	
2.1 Structure and Functions of Cell	2 - 1
2.2 Transport Across Cell Membrane	2 - 10
2.3 Cell Division	2 - 17
2.4 Cell Junctions	2 - 24
2.5 General Principles of Cell Communication	2 - 25
2.6 Intracellular Signaling Pathway Activation by Extracellular Signal Molecule	2 - 27
2.7 Forms of Intracellular Signaling	2 - 30
Multiple Choice Questions with Answers	2 - 32
Chapter - 3 Tissue Level of Organization (3 - 1) to (3 - 16)	
3.1 Classification of Tissue	3 - 1
3.2 Structure, Location and Functions of Epithelial Tissue	3 - 1
3.3 Structure, Location and Functions of Connective Tissue	3 - 6
3.4 Structure, Location and Functions of Muscular Tissue	3 - 13
3.5 Structure, Location and Functions of Nervous Tissue	3 - 13
Multiple Choice Questions with Answers	3 - 15
Unit - II	
Chapter - 4 Integumentary System (4 - 1) to (4 - 7)	
Multiple Choice Questions with Answers	4 - 5
Chapter - 5 Skeletal System and Joints (5 - 1) to (5 - 43)	
5.1 Divisions of Skeletal System	5 - 1
5.2 Types of Bones	5 - 2
5.3 Salient Features and Function of bones of Axial and Appendicular Skeletal System	5 - 6
5.4 Organization of Skeletal Muscle	5 - 25
5.5 Physiology of Muscle Contraction	5 - 26
5.6 Neuromuscular Junction	5 - 27
5.7 Structure and Function Classification of Joints	5 - 28
5.8 Types of Joint Movements and its Articulation	5 - 33
Multiple Choice Questions with Answers	5 - 37
Unit - III	
Chapter - 6 Body Fluids and Blood (6 - 1) to (6 - 54)	
A) Very Short Types Questions	6 - 1
Multiple Choice Questions with Answers	6 - 47



KD
PRINCIPAL
SIDDHANT COLLEGE OF PHARMACY,
SUDUMBRE, PUNE-412 109