

GUJARAT TECHNOLOGICAL UNIVERSITY
B.E. SEMESTER : V
CHEMICAL TECHNOLOGY

Subject Name: Pharmaceutical Chemistry

Subject Code: 153601

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	University Exam(E)	University Exam(P)	Mid Sem Exam(Theory) (M)	Practical (Internal)
3	0	2	5	70	0	30	50

Sr. No.	Course contents
01.	Synthesis: Retro synthesis analysis, concepts, Retro synthetic analysis & synthesis of thirty drugs in the classes of anti-infective, antihistaminic, CNS drugs, CVS drugs & NSAIDS with aromatic structures
02.	Heterocyclic & fused ring systems giving approximate conditions & emphasis on techno-commercial potential routes, synthesis of vitamins, peptides etc.
03.	Analytical techniques such as spectroscopic methods, flame photometry, chromatography etc., used in pharmaceutical chemistry & the relevance of the same.

Reference Books:

1. Instrumental Methods of Chemical Analysis, E. W. Ewing, McGraw Hill, New York. 4th Ed, 1975
2. Instrumental Methods of Analysis, H.H. Willard, L.L. Merrit, J.A. Dean, & F.A. Settle, Jr., CBS Publishers & Distributors, New Delhi, 6th Ed, 1998
3. Principles of Instrumental methods of analysis, Skoog, D.A., Holler F.J. & Nieman T.R., Indian reprint, 2006
4. Quantitative Pharmaceutical Chemistry, Glenn L. Jenkins, Adelbert M, McGraw-Hill Books Company, 6th Ed., 2005
5. Pharmaceutical Expedients, Characterization by IR, Raman & NMR Spectroscopy, David E. Bugay, W. Paul Findlay, Marcel Dekker, Inc, New York, Vol, 2008
6. Text Book of Pharmaceutical Analysis, Kenneth A., Connors, A Willey Interscience Publication, USA, 1997
7. Strategies for Organic Drug Synthesis & Design, & Daniel Led nicer, John Willey & Sons Inc. New York., 2nd Ed, 1998
8. Organic Chemistry of Drug Synthesis: Vol.1 to 6, Daniel Lednicer, John Wiley & Sons Inc.
9. Burger's Medicinal Chemistry & Drug Discovery: Vol. 1 to 6, A. Burger & M.E. Wolff, John Wiley & Sons – New Jersey, 6th Ed, 2003
10. Foye's Principles of Medicinal Chemistry, W.O. Foye, Lippincott Williams & Wilkins- Philadelphia, Oxford, 6th Ed, 2008.

11. Text book of Medicinal & Pharmaceutical Chemistry, Charles Owens Wilson
Lippincott Williams & Wilkins – Philadelphia. 1962
12. Pharmaceutical Substances: Synthesis, Patents, Applications (N-Z), A. Kleemann,
Georg Thieme Verlag, Stuttgart. 4th Ed, 2001