

Subject Code: BP503T	Subject Title: PHARMACOLOGY-II -THEORY
Pre-requisite Subject	- NONE -

Scope: This subject is intended to impart the fundamental knowledge on various aspects (classification, mechanism of action, therapeutic effects, clinical uses, side effects and contraindications) of drugs acting on different systems of body and in addition, emphasis on the basic concepts of bioassay.

Objectives: Upon completion of this course the student should be able to

1. Understand the mechanism of drug action and its relevance in the treatment of different diseases
2. Demonstrate isolation of different organs/tissues from the laboratory animals by simulated experiments
3. Demonstrate the various receptor actions using isolated tissue preparation
4. Appreciate correlation of pharmacology with related medical sciences

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)		
Lecture	Tutorial	Practical	Credit	Theory(T)		Total Marks
				University Assessment	Continuous Assessment	Theory
3	1	NA	4	75	25	100

Subject Contents					
Sr. No.	Topic	Total Hours (45 hours)	Weight (%)		
1	UNIT-I 1. Pharmacology of drugs acting on cardio vascular system a. Introduction to hemodynamic and electrophysiology of heart. b. Drugs used in congestive heart failure c. Anti-hypertensive drugs. d. Anti-anginal drugs. e. Anti-arrhythmic drugs. f. Anti-hyperlipidemic drugs.	10	22		
2	UNIT-II 1. Pharmacology of drugs acting on cardio vascular system a. Drug used in the therapy of shock. b. Hematinics, coagulants and anticoagulants. c. Fibrinolytics and anti-platelet drugs d. Plasma volume expanders. 2. Pharmacology of drugs acting on urinary system a. Diuretics b. Anti-diuretics.	10	22		
3	UNIT-III 3. Autocoids and related drugs a. Introduction to autacoids and classification b. Histamine, 5-HT and their antagonists. c. Prostaglandins, Thromboxanes and Leukotrienes. d. Angiotensin, Bradykinin and Substance P. e. Non-steroidal anti-inflammatory agents f. Anti-gout drugs g. Antirheumatic drugs	10	22		

4	UNIT-IV 5. Pharmacology of drugs acting on endocrine system a. Basic concepts in endocrine pharmacology. b. Anterior Pituitary hormones- analogues and their inhibitors. c. Thyroid hormones- analogues and their inhibitors. d. Hormones regulating plasma calcium level- Parathormone, Calcitonin and Vitamin-D. d. Insulin, Oral Hypoglycemic agents and glucagon. e. ACTH and corticosteroids.	08	18
5	UNIT-V 5. Pharmacology of drugs acting on endocrine system a. Androgens and Anabolic steroids. b. Estrogens, progesterone and oral contraceptives. c. Drugs acting on the uterus. 6. Bioassay a. Principles and applications of bioassay. b. Types of bioassay c. Bioassay of insulin, oxytocin, vasopressin, ACTH, d-tubocurarine, digitalis, histamine and 5-HT	07	16

Recommended Books (Latest Editions)

1. Rang H. P., Dale M. M., Ritter J. M., Flower R. J., Rang and Dale's Pharmacology, Churchill Livingstone Elsevier
2. Katzung B. G., Masters S. B., Trevor A. J., Basic and clinical pharmacology, Tata Mc Graw-Hill.
3. Goodman and Gilman's, The Pharmacological Basis of Therapeutics
4. Marry Anne K. K., Lloyd Yee Y., Brian K. A., Robbin L.C., Joseph G. B., Wayne A.
5. K., Bradley R.W., Applied Therapeutics, The Clinical use of Drugs, The Point
6. Lippincott Williams & Wilkins.
7. Mycek M.J, Gelnet S.B and Perper M.M. Lippincott's Illustrated Reviews-
8. Pharmacology.
9. 6. K.D.Tripathi. Essentials of Medical Pharmacology, , JAYPEE Brothers Medical
10. Publishers (P) Ltd, New Delhi.
11. 7. Sharma H. L., Sharma K. K., Principles of Pharmacology, Paras medical publisher
12. 8. Modern Pharmacology with clinical Applications, by Charles R.Craig & Robert.
13. 9. Ghosh MN. Fundamentals of Experimental Pharmacology. Hilton & Company,
14. Kolkata.
15. 10. Kulkarni SK. Handbook of experimental pharmacology. Vallabh Prakashan.