



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

PhD CET Syllabus

Paper II - Subject Specific Test Pharmacology

1.	General Pharmacology: Introduction to Pharmacology, Sources of Drugs, Routes of Drug Administration, Pharmacokinetics, Pharmacodynamics, Factors Modifying Drug action and Adverse drug reactions.
2.	Autonomic Nervous System: General Consideration, Adrenergic agonist, Adrenergic antagonists, Cholinergic agonists, Anticholinesterases drugs, Anticholinergic drugs, Skeletal muscle relaxants.
3.	Cardiovascular System: Antihypertensive Agents, Diuretics and Anti-diuretics, Antianginal Agents, Coagulants & Anticoagulants, Thrombolytics & Antiplatelet agents, Drugs for congestive cardiac failure, Management of shock, Hypolipidemic agents and Hematinic.
4.	Gastrointestinal System: Emetics and Antiemetics, Drugs for peptic ulcer, Anti-diarrheal agents and Laxative & purgatives.
5.	Respiratory System: Treatment of Cough, Drugs for Bronchial asthma.
6.	Drugs affecting Central Nervous system (CNS) : Introduction to CNS, Sedative and Hypnotics, Local Anesthetics, General Anesthetics, Antiepileptics, Antidepressants, Antipsychotics, NSAIDS, Opioids and Antiparkinsonian agents.
7.	Hormones and Antagonists: Introduction to Endocrinology, Glucocorticoids, Insulin, Oral hypoglycemic agents, Thyroxine & Antithyroid drugs, Estrogens and Antagonists, Progestins and Antagonists, Oral Contraceptives, Testosterone and Anabolic steroids.
8.	Chemotherapeutic agents: General consideration, Sulphonamides and Cotrimoxazole, Fluroquinolones, Penicillins, Cephalosporins and Other beta lactam antibiotics, Aminoglycosides, Macrolides, Tetracyclines and Chloramphenicol, Antitubercular drugs, Antileprotic agents, Antimalarial agents, Anti-amoebic agents, Anti-helminthics, Antifungal agents, Antiviral agents and Cancer Chemotherapy.
9.	Miscellaneous topics: Chelating agents, Drug-drug interaction, Drugs used at extreme of age, in pregnancy & organ dysfunction, Dermato-pharmacology, Ocular pharmacology, Pharmacoeconomics, Pharmacogenetics, Drugs and Gout and Rheumatoid Arthritis, Drug development Process, Pre-Clinical studies, Pharmacovigilance (ADR reporting)

	Animal experiments: Ethical considerations, ethical approval, applicable regulatory Guidelines (CPCSEA), humane animal research (principles of 3Rs) and alternatives to animal experimentation. General and statistical considerations
11.	General screening and evaluation of: Analgesics, antipyretics, anticonvulsants, anti-inflammatory drugs, antidepressants, antianxiety and antipsychotics, sedatives, muscle relaxants, antihypertensives, hypocholesterolaemic agents, antiarrhythmics, diuretics, adrenergic blocking drugs
12.	Biochemical Pharmacology: Basic principles and applications of simple analytical methods, Principles of quantitative estimation of drugs, endogenous compounds and poisons using Colorimetry, Spectrophotometry, flame photometry, High Performance Liquid Chromatography (HPLC) and enzyme-linked immunosorbent assay (ELISA).

Reference Books:

1. K.D. Tripathi, Essentials of Medical Pharmacology, Jaypee Brothers
2. Goodman & Gilman's The Pharmacological Basis of Therapeutics, ed. Laurence Brunton, Bruce A. Chabner, Bjorn Knollman.
3. R.S. Satosakar, A.D. Bhandarkar, S.S. Ainapure, Pharmacology and Pharmacotherapeutics
4. H.L. Sharma and K.L. Sharma, Principles of Pharmacology, Paras Medical Publisher, Hyderabad, New Delhi
5. Drug Discovery and Evaluation: Pharmacological Assays Editors: Vogel, Hans Clinical Pharmacology by Laurence, Bennett and Brown