

ESTD -2006



KONKAN GYANPEETH RAHUL DHARKAR COLLEGE OF PHARMACY AND RESEARCH INSTITUTE, KARJAT

(Approved by AICTE & P.C.I. (New Delhi), D.T.E. (Govt. of MS) & Affiliated to University of Mumbai & MSBTE)

CHOICE BASED CREDIT SYSTEM (CBCS) SEM IV (2016 SYLLABUS)

Sr.No.	Code	Name of Subject	Course outcome
25	BPH C 401 T	ORGANIC CHEMISTRY II	1. The learner should be able to Outline few methods of preparation for various functional groups
			2. The learner should be able to understand how and why the C=O group reacts with nucleophiles (using molecular orbitals and curly arrows) to give varied products
			3. The learner should be able to predict the molecules that can be synthesized by reaction of C=C groups with electrophiles
			4. The learner should be able to understand reactivity of aromatic systems towards electrophiles and nucleophiles
26	BPH C 402 T	PHYSICAL PHARMACY II	1. The learner should be able to identify order of reactions, pathways of drug degradation and types of drug complexes
			2. The learner should be able to describe Fick's laws of diffusion, mechanism of drug dissolution and absorption.
			3. The learner should be able to acquire understanding of drug complexes, protein binding and their applications
			4. The learner should be able to gain knowledge of the basic principles of coarse and colloidal dispersions
			5. The learner should be able to apply basic principles of drug characterization to biopharmaceutical aspects of drug delivery
27	BPH C 403 T	PHARMACEUTICS I	1. The learner should be able to describe the status of Pharma Industry in India & elaborate on the different official compendia. recall the various types of dosage forms, routes of administration & describe the alternate system of medicine.
			2. The learner should be able to explain the concepts & need for GMP & QA preformulation
			3. The learner should be able to summarize the packing of pharmaceuticals.
			4. The learner should be able to explain formulation consideration, unit operation, QA aspects of monophasic system & powders
			5. The learner should be able to classify describe various biological products viz suures & ligatures, blood products & plasma volume expanders.
28	BPH C 404 T	PHARMACOLOGY I	1. The learner should be able to define the scope, general principles and applications of Pharmacology. Comprehend pharmacokinetic and pharmacodynamic principles along with ability to compare and contrast various routes of administration with advantages and disadvantages. Understand the factors modifying drug action.
			2. The learner should be able to classify receptors and elucidate their role in drug/neurotransmitter/hormone action. Understand the mechanisms of drug action.
			3. The learner should be able to explain autonomic transmission and discuss the pharmacology of drugs acting on ANS and rationalize their therapeutic applications.
			4. The learner should be able to explain the pharmacology of drugs acting on cardiovascular system and as diuretics and discuss their use in associated diseases

29	BPH C 405 T	MICROBIOLOGY	1. The learner should be able to describe the classification of microorganism and list some of common diseases caused by them.
			2. The learner should be able to use different microscopic techniques, staining technique and differential media for identification of common diseases causing microorganisms.
			3. The learner should be able to describe different methods for control of growth of microorganism and method of preservation /sterilization of pharmaceutical products.
			4. The learner should be able to describe the importance of microbial testing and microbial limit tests for some pharmaceutical products
30	BPH C 406 T	MATHEMATICS AND STATISTICS	1. The learner should be able to know theoretical concepts of topics and their application in pharmacy.
			2. The learner should be able to solve the different types of problems by applying theoretical concepts.
			3. The learner should be able to appreciate the important application of mathematics and statistics in pharmacy
31	BPH C 407 L	PHYSICAL PHARMACY II LAB	1. The learner should be able to determine reaction rate constant, order of reaction for different reaction
			2. The learner should be able to predict shelf life by carrying out accelerated stability studies.
			3. The learner should be able to calculate physical parameter such as stability constant, molecular weight and critical micellar concentration.
32	BPH C 408 L	PHARMACEUTICS I LAB	1. The learner should be able to prepare monophasic liquid system & powder system, justify the components and method preparation.
			2. The learner should be able to demonstrate the properties of developed dosage form & biological products, comment on quality.
			3. The learner should be able to perform experiment as per GLP & record in journals.
33	BPH C 409 L	PHARMACOLOGY I LAB	1. The learner should be able to perform in vitro experiment on cock ileum (tissue) to evaluate effect of drug (ACh) and dose on response (contraction) to comprehend and infer drug effects on receptor and its outcomes.
			2. The learner should be able to state the principles behind plotting dose-response of drug/agonist/antagonist and its application. Define pA ₂ value of antagonist.
			3. The learner should be able to observe and explain the mechanism of action of neurotransmitter, drugs and ions on isolated frog heart.
			4. The learner should be able to knowledge of animal handling techniques and understanding of ethical guidelines governing animal experimentation.