

**PHB**



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**Course Name : B. Pharm**  
**Year : First Year**  
**Subject Name : Syllabus**

# Semester- I

## *Semester- I*

<b>Subjects</b>	<b>Syllabus</b>
	<b>Theory</b>
<b>HUMAN ANATOMY AND PHYSIOLOGY-I</b>	<b>Unit I</b> (Introduction to human body, Cellular level of organization, Tissue level of organization); Unit II (Integumentary system, Skeletal system, Joints); Unit III (Body fluids and blood, Lymphatic system);

	<p>Unit IV (Peripheral nervous system, Peripheral nervous system);</p> <p>Unit V (Cardiovascular system)</p>
<b>PHARMACEUTICAL ANALYSIS</b>	<p>Unit I(Pharmaceutical analysis, Errors, Pharmacopoeia);</p> <p>Unit II(Acid base titration, Non aqueous titration);</p> <p>Unit III(Precipitation titration, Complexometric titration, Gravimetry, Basic Principles, methods and application of diazotisation titration);</p> <p>Unit IV(Redox titrations);</p> <p>Unit V(Electrochemical methods of analysis- Conductometry, Potentiometry, Polarography)</p>
<b>PHARMACEUTICS- I</b>	<p>Unit I(Historical background and development of profession of pharmacy, Prescription, Dosage forms, Posology);</p> <p>Unit II(Pharmaceutical calculations, Powders, Liquid dosage forms);</p> <p>Unit III(Monophasic liquids, Biphasic liquids Suspensions, Emulsions);</p> <p>Unit IV(Suppositories, Pharmaceutical incompatibilities); Unit V-Semisolid dosage forms</p>
<b>PHARMACEUTICAL INORGANIC CHEMISTRY</b>	<p>Unit I(Impurities in pharmaceutical substances, General methods of preparation of compounds);</p> <p>Unit II(Acids, Bases and Buffers, Major extra and intracellular electrolytes, Dental products);</p> <p>Unit III(Gastrointestinal agents, Acidifiers, Antacid, Cathartics, Antimicrobials);</p> <p>Unit IV(Miscellaneous compounds, Expectorants, Emetics, Haematinics, Poison and Antidote, Astringents);</p> <p>Unit V- Radiopharmaceuticals</p>
<b>COMMUNICATION SKILLS</b>	<p>Unit I(Communication Skills, Barriers to communication, Perspectives in Communication);</p> <p>Unit II(Elements of Communication, Communication Styles);</p> <p>Unit III(Basic Listening Skills, Effective Written Communication, Writing Effectively);</p> <p>Unit IV(Interview Skills, Giving Presentations);</p> <p>Unit V- Group Discussion</p>
<b>REMEDIAL BIOLOGY</b>	<p>Unit I(Living world, Morphology of Flowering plants);</p> <p>Unit II(Body fluids and circulation, Digestion and Absorption, Breathing and respiration);</p> <p>Unit III(Excretory products and their elimination, Neural control and coordination, Chemical coordination and regulation, Human reproduction);</p> <p>Unit IV(Plants and mineral nutrition, Photosynthesis);</p> <p>Unit V(Plant respiration, Plant growth and development, Cell – The unit of life, Tissues</p>
<b>REMEDIAL MATHEMATICS</b>	<p>Unit I(Partial fraction, Logarithms, Function, Limits and continuity);</p> <p>Unit II Matrices and Determinant);</p> <p>Unit III(Calculus –Differentiation);</p>

	Unit IV (Analytical Geometry- Introduction, Straight Line, Integration); Unit V (Differential Equations- Application in solving Pharmacokinetic equations, Laplace Transform- Application in solving Chemical kinetics and Pharmacokinetics equations)
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## Semester- II

Semester - II

Subjects	Syllabus
	Theory
HUMAN ANATOMY AND PHYSIOLOGY-II	<p>Unit I- <b>Nervous system</b> (Organization of nervous system, neuron, neuroglia, classification and properties of nerve fibre, electrophysiology, action potential, nerve impulse, receptors, synapse, neurotransmitters. <b>Central nervous system:</b> Meninges, ventricles of brain and cerebrospinal fluid, structure and functions of brain (cerebrum, brain stem, cerebellum), spinal cord (gross structure, functions of afferent and efferent nerve tracts, reflex activity) );</p> <p>Unit II- <b>Digestive system</b> (Anatomy of GI Tract with special reference to anatomy and functions of stomach, Acid production in the stomach, regulation of acid production through parasympathetic nervous system, pepsin role in protein digestion) small intestine 54 and large intestine,</p>

	<p>anatomy and functions of salivary glands, pancreas and liver, movements of GIT, digestion and absorption of nutrients and disorders of GIT. Energetics- Formation and role of ATP, Creatinine Phosphate and BMR) ;</p> <p>Unit III- <b>Respiratory system</b> (Anatomy of respiratory system with special reference to anatomy of lungs, mechanism of respiration, regulation of respiration Lung Volumes and capacities transport of respiratory gases, artificial respiration, and resuscitation methods), <b>Urinary system</b> (Anatomy of urinary tract with special reference to anatomy of kidney and nephrons, functions of kidney and urinary tract, physiology of urine formation, micturition reflex and role of kidneys in acid base balance, role of RAS in kidney and disorders of kidney);</p> <p>Unit IV- <b>Endocrine system</b> (Classification of hormones, mechanism of hormone action, structure and functions of pituitary gland, thyroid gland, parathyroid gland, adrenal gland, pancreas, pineal gland, thymus and their disorders.);</p> <p>Unit V- <b>Reproductive system</b> (Anatomy of male and female reproductive system, Functions of male and female reproductive system, sex hormones, physiology of menstruation, fertilization, spermatogenesis, oogenesis, pregnancy and parturition), Introduction to genetics Chromosomes, genes and DNA, protein synthesis, genetic pattern of inheritance</p>
PHARMACEUTICAL ORGANIC CHEMISTRY –I	<p>Unit I(Pharmaceutical analysis, Errors, Pharmacopoeia);</p> <p>Unit II(Acid base titration, Non aqueous titration);</p> <p>Unit III(Precipitation titration, Complexometric titration, Gravimetry, Basic Principles, methods and application of diazotisation titration);</p> <p>Unit IV(Redox titrations);</p> <p>Unit V(Electrochemical methods of analysis- Conductometry, Potentiometry, Polarography)</p>
BIOCHEMISTRY	<p>Unit I(Historical background and development of profession of pharmacy, Prescription, Dosage forms, Posology);</p> <p>Unit II(Pharmaceutical calculations, Powders, Liquid dosage forms);</p> <p>Unit III(Monophasic liquids, Biphasic liquids Suspensions, Emulsions);</p> <p>Unit IV(Suppositories, Pharmaceutical incompatibilities); Unit V-Semisolid dosage forms</p>
PATHOPHYSIOLOGY	<p>Unit I(Impurities in pharmaceutical substances, General methods of preparation of compounds);</p> <p>Unit II(Acids, Bases and Buffers, Major extra and intracellular electrolytes, Dental products);</p> <p>Unit III(Gastrointestinal agents, Acidifiers, Antacid, Cathartics, Antimicrobials);</p> <p>Unit IV(Miscellaneous compounds, Expectorants, Emetics, Haematinics, Poison and Antidote, Astringents);</p> <p>Unit V- Radiopharmaceuticals</p>

<p><b>COMPUTER APPLICATIONS IN PHARMACY</b></p>	<p>Unit I(Communication Skills, Barriers to communication, Perspectives in Communication);  Unit II(Elements of Communication, Communication Styles);  Unit III(Basic Listening Skills, Effective Written Communication, Writing Effectively);  Unit IV(Interview Skills, Giving Presentations);  Unit V- Group Discussion</p>
<p><b>ENVIRONMENTAL SCIENCES</b></p>	<p>Unit I(Living world, Morphology of Flowering plants);  Unit II(Body fluids and circulation, Digestion and Absorption, Breathing and respiration);  Unit III(Excretory products and their elimination, Neural control and coordination, Chemical coordination and regulation, Human reproduction);  Unit IV(Plants and mineral nutrition, Photosynthesis);  Unit V(Plant respiration, Plant growth and development, Cell – The unit of life, Tissues</p>