



**ANAND CHARITABLE TRUST'S  
ANAND COLLEGE OF HOMOEOPATHY  
PHYSIOLOGY INCL BIOCHEMISTRY**

**ANNUAL PLANER**

**1<sup>st</sup> BHMS 2024-25**

**THEORY**

<b>SEMESTER</b>	<b>DR. VAISHALI MISHRA</b>	<b>DR. VEDPRAKASH CHAWLA</b>
<b>SEMESTER I</b>	<b>BIOPHYSICS (15) BODY FLUID &amp; IMMUNITY (35)</b>	<b>GENERAL PHYSIOLOGY (21) SKIN &amp; INTEGUMENARY SYSTEM (16) NERVE MUSCLE PHYSIOLOGY (18)</b>
<b>SEMESTER II</b>	<b>RESPIRATORY SYSTEM (25) ENDOCRINOLOGY (33)</b>	<b>CVS (21) CNS (42)</b>
<b>SEMESTER III</b>	<b>DIGESTIVE &amp; NUTRITION SYSTEM (35) BIOCHEMISTRY (25)</b>	<b>SPECIAL SENSES (20) RENAL PHYSIOLOGY (20) REPRODUCTIVE SYSTEM (15)</b>

## THEORY

MONTH	DR. VAISHALI MISHRA	DR. VEDPRAKASH CHAWLA	TOTAL
Jan 25	<b>Foundation Program</b>	<b>Foundation Program</b>	
Feb 25	<p>Introduction of Homoeopathy &amp; History of Medicine (1) Holistic concept of Medicine (1)</p> <p><b>BIOPHYSICS</b> Understand The Biophysical Science Of Cell Membrane (4) -The Membrane Physiology &amp; Membrane Potential (4) -Understand The Chemical Bonds (4)</p>	<p><b>GENERAL PHYSIOLOGY</b> Definition And General Introduction To Cell (2) -Cell Structure, Cell Organelles &amp; Cell Function (2)</p>	18
March 25	<p>Inorganic Compounds &amp; Solution (4)</p> <p><b>BODY FLUID</b> Composition &amp; Function Of Blood Components (2) - Origin, Forms, Variation, And Functions Of Plasma Proteins (2) - Synthesis &amp; Functions Of Haemoglobin (2) - RBC Formation &amp; Functions (2)</p>	<p>- Cell Death, Cell Adaptation (3) - Stem Cell, Cell Aging (1) - Cell Junction (3) - Occluding Junction, Tight Junction (1) - Communicating Junction, Gap Junction, Chemical Synapse (3) - Anchoring Junction, Adherens Junction, Focal Adhesion (2) - Desmosome, Hemidesmosome, Importance (1)</p> <p>Passive Transport (1) - Active Transport (3)</p>	<u>30</u>
	<b>Dr. Vaishali Mishra</b>	<b>Dr. Chawla / Dr. Karuna Kasare</b>	

April 25	<ul style="list-style-type: none"> <li>- Different Types Of Anemia &amp; Jaundice (3)</li> <li>WBC Formation &amp; Its Regulation (3)</li> <li>Formation Of Platelets, Functions &amp; Variation (3)</li> <li>- Physiological Basis Of Haemostasis (3)</li> <li>- Clinical Importance Of Blood Coagulation (2)</li> <li>- Blood Groups (2)</li> </ul>	<ul style="list-style-type: none"> <li>- Homeostasis (1)</li> <li>- Homeostasis- Components, Mechanism (1)</li> <li>- Homeostasis- Mechanism, Physiological Importance (1)</li> </ul> <p><b>SKIN &amp; INTEGUMENTARY SYSTEM</b></p> <ul style="list-style-type: none"> <li>Structure Of Skin (7)</li> <li>- Function Of Skin (1)</li> <li>Function Of Skin (5)</li> </ul> <p><b>NERVE MUSCLE PHYSIOLOGY</b></p> <ul style="list-style-type: none"> <li>-Functional Anatomy Of Nerve Fibers (3)</li> </ul>	<u>35</u>
	<b>Dr. Subhash Bhagwat / Dr. Vaishali Mishra</b>	<b>Dr. Mandar Kapare / Dr. Karuna Kasare</b>	
May 25	<ul style="list-style-type: none"> <li>- Clinical Importance Of Blood Grouping (2)</li> <li>- Blood Transfusion (1)</li> <li>- Role Of Lymphoid Tissues In Immune Response (3)</li> <li>--Definition &amp; Classification Of Different Types Of Immunity (5)</li> <li>- Development Of Immunity &amp; Its Regulation (2)</li> </ul>	<ul style="list-style-type: none"> <li>- Degeneration &amp; Regeneration Of Neurons (4)</li> <li>- Neuromuscular Junction (4)</li> <li>- Physiological Properties Of Skeletal Muscle (3)</li> </ul>	<u>24</u>
Summer Vacation			
June 25	<p><b>RESPIRATORY SYSTEM</b></p> <ul style="list-style-type: none"> <li>Functional Anatomy Of Respiratory Tract (2)</li> <li>- Mechanics Of Normal Respiration (2)</li> <li>- Pressure Changes During Ventilation (2)</li> <li>- Lung Volume &amp; Capacities (3)</li> </ul>	<p><b>CVS</b></p> <ul style="list-style-type: none"> <li>Describe The Functional Anatomy Of Heart Including Chambers, Sounds (1)</li> <li>- Pacemaker Tissue &amp; Conducting System (2)</li> <li>- Properties Of Cardiac Muscle (3)</li> <li>- Cardiac Cycle (4)</li> <li>- Heart Sounds (1)</li> </ul>	<u>28</u>

	<ul style="list-style-type: none"> <li>- Alveolar Surface Tension (2)</li> <li>- Transport Of Respiratory Gases (3)</li> </ul>	<ul style="list-style-type: none"> <li>- ECG (1)</li> <li>- Arrhythmia, Heart Block &amp; Myocardial Infarction (1)</li> <li>- Hemodynamic Of Circulatory System (1)</li> </ul>	
July 25	<ul style="list-style-type: none"> <li>- Transport Of Respiratory Gases (1)</li> <li>- Regulation Of Respiration (4)</li> <li>- Hypoxia (2)</li> <li>- Principal &amp; Method Of Artificial Respiration (2)</li> <li>- Physiology Of High Altitude &amp; Deep Sea Diving (2)</li> <li>- Revision (3)</li> </ul>	<ul style="list-style-type: none"> <li>Heart Rate (1)</li> <li>- Cardiac Output (1)</li> <li>Blood Pressure (1)</li> <li>- Coronary, Cerebral, Capillary, Pulmonary &amp; Splenic Circulation (2)</li> <li>- Mechanism Of Shock, Syncope &amp; Hypertension (1)</li> </ul> <p><b>CNS</b></p> <ul style="list-style-type: none"> <li>Organization Of Nervous System (2)</li> <li>- Functions And Properties Of Synapse (2)</li> <li>- Functions And Properties Of Receptors (2)</li> <li>- Functions &amp; Properties Of Reflex (2)</li> </ul>	<u>28</u>
August 25	<p><b>ENDOCRINOLOGY</b></p> <ul style="list-style-type: none"> <li>Mechanism Of Action Of Steroids, Proteins &amp; Amine Hormones (3)</li> <li>- Regulation Of Secretion Of Hormones By Hypothalamus (3)</li> <li>- Synthesis, Secretion, Transport, Physiological Action, Regulation &amp; Effect Of Altered Secretion Of Pituitary Gland (6)</li> <li>- Synthesis, Secretion, Transport, Physiological Action, Regulation &amp; Effect Of Altered Secretion Of Thyroid Gland (4)</li> </ul>	<ul style="list-style-type: none"> <li>Mechanism Of Chemical Transmission In The Nervous System (3)</li> <li>- Somatic Sensation &amp; Sensory Tract (3)</li> <li>- Motor Tracts &amp; Mechanism Of Maintenance Of Muscle Tone (2)</li> <li>Motor Tracts &amp; Mechanism Of Maintenance Of Muscle Tone (1)</li> <li>- Physiology Of Vestibular Apparatus, Control Of Body Movements, Posture &amp; Equilibrium (3)</li> <li>- Structure &amp; Function Of Autonomic Nervous System (1)</li> </ul>	<u>29</u>

Sept 25	<p>-Synthesis, Secretion, Transport, Physiological Action, Regulation &amp; Effect Of Altered Secretion Of Thyroid Gland (1)</p> <p>-Synthesis, Secretion, Transport, Physiological Action, Regulation &amp; Effect Of Altered Secretion Of Parathyroid Gland (4)</p> <p>- Synthesis, Secretion, Transport, Physiological Action, Regulation &amp; Effect Of Altered Secretion Of Adrenal Gland (4)</p> <p>- Synthesis, Secretion, Transport, Physiological Action, Regulation &amp; Effect Of Altered Secretion Of Pancreatic Gland (3)</p> <p>- Physiology Of Thymus &amp; Pineal Gland (3)</p>	<p>Structure &amp; Function Of Autonomic Nervous System (4)</p> <p>-Functions, Lesion &amp; Sensory Disturbances Of Spinal Cord (3)</p> <p>-Functions Of Cerebral Cortex, Basal Ganglia, Thalamus, Hypothalamus, Cerebellum &amp; Limbic System &amp; Their Abnormalities (5)</p> <p>- Behavioural EEG Characteristics During Sleep &amp; Mechanism Responsible For Its Production (3)</p>	<u>30</u>
Oct 25	<p>Physiology Of Local Hormones (2)</p> <p>- Diagnosis Of Pregnancy (2)</p>	<p>-Physiological Basis Of Memory, Learning &amp; Speech (2)</p> <p>Revision(4)</p>	<u>10</u>
Nov 25	<p><b>GIT</b></p> <p>-Structure, Function &amp; Innervations Of Digestive System (4)</p> <p>- Composition, Mechanism Of Secretion, Function &amp; Regulation Of Saliva (3)</p> <p>- Movements Of Oesophagus (3)</p> <p>Composition, Mechanism Of Secretion, Function &amp;</p>	<p><b>SPECIAL SENSES</b></p> <p>-Perception Of Smell Sensation (2)</p> <p>- Perception Of Taste Sensation (3)</p> <p>- Functional Anatomy Of Ear &amp; Auditory Pathway (3)</p> <p>- Function Anatomy Of Eye (1)</p> <p>Function Anatomy Of Eye (2)</p> <p>- Physiology Of Image Formation (3)</p>	<u>30</u>

	<p>Regulation Of Gastric Juice (3)  - Composition, Mechanism Of Secretion, Function &amp; Regulation Of Pancreatic Juice (3)</p>		
Dec 25	<p>Structure &amp; Function Of Liver &amp; Gall Bladder (3)  - Composition, Mechanism Of Secretion, Function &amp; Regulation Of Small Intestine (3)  Movements Of Gastrointestinal Tract, Its Regulation &amp; Function (4)  - Movement Of Large Intestine &amp; Defecation As A Process (3)</p>	<p>Physiology Of Vision Including Color Vision (3)  - Refractive Errors &amp; Color Blindness (3)</p> <p><b>RENAL &amp; EXCRETORY SYSTEM</b>  Structure &amp; Function Of Kidney (2)  - Role Of Renin Angiotensin System (2)  - Mechanism Of Urine Formation (3)</p>	<u>26</u>
Jan 26	<p>- Physiology Of Digestion &amp; Absorption Of Nutrients (3)</p> <p><b>BIOCHEMISTRY</b>  - - Enzymes &amp; Their Activities (3)  - Lipid Metabolism (3)  - Carbohydrate Metabolism (3)  Protein Metabolism (3)</p>	<p>Process Of Filtration, Secretion &amp; Reabsorption In The Kidney (3)  - Process Of Concentration &amp; Diluting Mechanism In The Kidney (3)  - Renal Regulation Of Acid-Base Balance (3)  - Physiology Of Micturition (2)  Kidney Function Test (2)</p>	<u>28</u>
Feb 26	<p>Vitamins (12)</p> <p>Vit. A – Def., Chemistry, Absorption, Transport, Storage, Biochemical Functions, Sources, Deficiency, Applied</p> <p>Vit. D – Def., Chemistry, Absorption, Transport,</p>	<p><b>REPRODUCTIVE SYSTEM</b></p> <p>- The Onset, Progression &amp; Stages Of Puberty (3)  - Causes &amp; Expression Of Early &amp; Delayed Puberty (2)</p> <p>-Structure &amp; Function Of Male Reproductive System (2)</p>	<u>24</u>

	Storage, Biochemical Functions, Sources, Deficiency, Applied  Vit. E – Def., Chemistry, Absorption, Transport, Storage, Biochemical Functions, Sources, Deficiency, Applied	-Physiological Effect Of Male Sex Hormones (1) - Functions Of Testis & Control Of Spermatogenesis & Factors Modifying It (4)	
March 26	Vitamins (10)  Vit. K – Def., Chemistry, Absorption, Transport, Storage, Biochemical Functions, Sources, Deficiency, Applied  Vit. B Complex ( B1, B2, B3, B5, B6, B9 & B 12) – Def., Chemistry, Absorption, Transport, Storage, Biochemical Functions, Sources, Deficiency, Applied	- Female Reproductive System & Function Of Ovary & Its Control (2) - Menstrual Cycle With Hormonal Uterine & Ovarian Changes (5) - Physiological Effect Of Female Sex Hormones (1) - Contraceptive Methods For Male & Female (2) - Physiology Of Pregnancy, Parturition & Lactation (3)	<u>23</u>
April 26	Revision	Revision	
May 26	Prelim Exam		
June 26	University Exam		
Lectures proposed by NCH		325 hrs	
Lectures conducted		363 hrs	

*Vas*  
HOD

Human Physiology & Biochemistry

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