ANAND CHARITABLE TRUST'S
ANAND COLLEGE OF HOMOEOPATHY

PHYSIOLOGY INCL BIOCHEMISTERY

ANNUAL PLANER

1st BHMS 2024-25

THEORY

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

THEORY

MONTH	DR. VAISHALI MISHRA	DR. VEDPRAKASH CHAWLA	TOTAL
Jan 25	**Foundation Program**	**Foundation Program**	
Feb 25	Introduction of Homoeopathy & History of Medicine (1) Holistic concept of Medicine (1) **BIOPHYSICS** Understand The Biophysical Science Of Cell Membrane (4) -The Membrane Physiology & Membrane Potential (4) -Understand The Chemical Bonds (4)	**GENERAL PHYSIOLOGY** Definition And General Introduction To Cell (2) -Cell Structure, Cell Organelles & Cell Function (2)	18
March 25	Inorganic Compounds & Solution (4) **BODY FLUID** Composition & Function Of Blood Components (2) - Origin, Forms, Variation, And Functions Of Plasma Proteins (2) - Synthesis & Functions Of Haemoglobin (2) - RBC Formation & Functions (2)	- 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) Passive Transport (1) - Active Transport (3)	30
	Dr. Vaishali Mishra	**Dr. Chawla / Dr. Karuna Kasare**	

April 25	- Different Types Of Anemia & Jaundice (3) WBC Formation & Its Regulation (3) Formation Of Platelets, Functions & Variation (3) - Physiological Basis Of Haemostasis (3) - Clinical Importance Of Blood Coagulation (2) - Blood Groups (2)	- Homeostasis (1) - Homeostasis- Components, Mechanism (1) - Homeostasis- Mechanism, Physiological Importance (1) **SKIN & INTEGUMENTARY SYSTEM** Structure Of Skin (7) - Function Of Skin (1) Function Of Skin (5) **NERVE MUSCLE PHYSIOLOGY** -Functional Anatomy Of Nerve Fibers (3)	35
	Dr. Subhash Bhagwat / Dr. Vaishali Mishra	**Dr. Mandar Kapare / Dr.Karuna Kasare**	
May 25	- Clinical Importance Of Blood Grouping (2) - Blood Transfusion (1) - Role Of Lymphoid Tissues In Immune Response (3) --Definition & Classification Of Different Types Of Immunity (5) - Development Of Immunity & Its Regulation (2)	- Degeneration & Regeneration Of Neurons (4) - Neuromuscular Junction (4) - Physiological Properties Of Skeletal Muscle (3)	24
	Summer Vacation		
June 25	**RESPIRATORY SYSTEM** Functional Anatomy Of Respiratory Tract (2) - Mechanics Of Normal Respiration (2) - Pressure Changes During Ventilation (2) - Lung Volume & Capacities (3)	**CVS** Describe The Functional Anatomy Of Heart Including Chambers, Sounds (1) - Pacemaker Tissue & Conducting System (2) - Properties Of Cardiac Muscle (3) - Cardiac Cycle (4) - Heart Sounds (1)	28

	- Alveolar Surface Tension (2) - Transport Of Respiratory Gases (3)	- ECG (1) - Arrhythmia, Heart Block & Myocardial Infarction (1) - Hemodynamic Of Circulatory System (1)	
July 25	- Transport Of Respiratory Gases (1) - Regulation Of Respiration (4) - Hypoxia (2) - Principal & Method Of Artificial Respiration (2) - Physiology Of High Altitude & Deep Sea Diving (2) - Revision (3)	Heart Rate (1) - Cardiac Output (1) Blood Pressure (1) - Coronary, Cerebral, Capillary, Pulmonary & Splenic Circulation (2) - Mechanism Of Shock, Syncope & Hypertension (1) **CNS** Organization Of Nervous System (2) - Functions And Properties Of Synapse (2) - Functions And Properties Of Receptors (2) - Functions & Properties Of Reflex (2)	28
August 25	**ENDOCRINOLOGY** Mechanism Of Action Of Steroids, Proteins & Amine Hormones (3) - Regulation Of Secretion Of Hormones By Hypothalamus (3) - Synthesis, Secretion, Transport, Physiological Action, Regulation & Effect Of Altered Secretion Of Pituitary Gland (6) - Synthesis, Secretion, Transport, Physiological Action, Regulation & Effect Of Altered Secretion Of Thyroid Gland (4)	Mechanism Of Chemical Transmission In The Nervous System (3) - Somatic Sensation & Sensory Tract (3) - Motor Tracts & Mechanism Of Maintenance Of Muscle Tone (2) Motor Tracts & Mechanism Of Maintenance Of Muscle Tone (1) - Physiology Of Vestibular Apparatus, Control Of Body Movements, Posture & Equilibrium (3) -Structure & Function Of Autonomic Nervous System (1)	29

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

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

	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)	23
April 26	Revision	Revision	
May 26	Prelim Exam		
June 26	University Exam		
Lectures proposed by NCH	**325 hrs**		
Lectures conducted	**363 hrs**		

HOD
Human Physiology & Biochemistry

HOD
DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY
ANAND COLLEGE OF HOMOEOPATHY
PHULEWADI ROAD,VAIJAPUR

Principal
Anand College of Homoeopathy

Principal
Anand College Of Homoeopathy
Phulewadi Road, Vaijapur

Anand College of Homoeopathy Vaijapur

November 24	- Study of compound microscope (12)	-Case taking & approach to patient (12)	24
December 24	- Collection of blood sample (14) - Estimation of haemoglobin concentration (14)	-Case taking & approach to patient (22)	50
January 25	- Determination of haematocrit (11) - Hemocytometry (11)	-Case taking & approach to patient (10) -General concept of Examination (20)	52
February 25	- Hemocytometry (3) - Total RBC count (10) - Determination of RBC indices (5) - Total leucocytes count (8)	-General concept of Examination (22)	48
March 25	- Total leucocytes count (2) - Preparation & examination of blood smear (8) - Differential leucocytes count (10)	-Demonstrate effect of mild, moderate & severe exercise & record changes in cardio respiratory parameters (16)	36
April 25	- Absolute eosinophil count (5) - Determination of ESR (5)	-Perform Ergography (10)	20
May 25	- Determination of blood group (6) - Determination of bleeding time & coagulation time (6)	-Perform Ergography (10)	22
June 25	- Record blood pressure at rest & in different grades of exercise & postures (7) - Record pulse at rest & in different grades of exercise & posture (7) - Record ECG (5)	- Perform the clinical examination of Nervous system: Higher functions, sensory system, motor system, reflexes, cranial nerves in a normal volunteer or simulated environment (11)	48

	- Demonstrate the correct clinical examination of Cardiovascular system (7)	- Perform the clinical examination of Nervous system: Higher functions, sensory system, motor system, reflexes, cranial nerves in a normal volunteer or simulated environment (11)	
July 25	- Demonstrate testing of visual acuity, colour & field of vision in a volunteer (12) - Demonstrate testing of visual acuity, colour & field of vision in a volunteer (12)	- Perform clinical examination of Respiratory system in a normal volunteer (28)	52
August 25	- Demonstrate testing of hearing in a volunteer (8) - Demonstrate testing for smell in a volunteer (7) - Demonstrate testing for taste sensation in a volunteer (7)	-Reproductive system- Diagnosis of pregnancy (18)	40
September 25	- OPD (22)	- OPD (24)	46
October 25	- Demonstration of uses of instruments or equipment (12)	- Observe the process of conducting liver function test (12)	24
November 25	- Qualitative analysis of carbohydrates, proteins & lipids (16)	- Demonstrate the Gastrointestinal system (18)	34
December 25	- Normal characteristics of urine (12) - Abnormal constituents of urine (12)	- OPD (26)	50
January 26	- Quantitative estimation of glucose, total proteins, uric acid in blood (6) - Liver function test (4) - Kidney function test (4) - Lipid profile (4) - Interpretation & discussion of results of biochemical tests (4)	- OPD (16)	38
February 26	- OPD (10)	- OPD (10)	20
March 26	Revision & Exam		