

Gulabrao Patil Homoeopathic Medical College, Miraj

Ref. No. :

Date :



ANNEXURE - IV

DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY

Academic Year 2021 - 2022

Academic Activities/Webinar/Workshop/CME/Activities in Last One Year.

College Code : 4205

Academic Planner/Advanced Teaching Plan Time Table (Year wise)
Details from 1st January 2021 to 31st December 2021

Sr. No.	Details	Total Number in Hours
1.	Lecture	289
2.	Symposium	--
3.	Practical/Clinics	310
4.	Inter-Departmental Seminars	04
5.	Seminar	08
6.	Case presentation	--
7.	Journal Club	--



Principal

**Gulabrao Patil Homoeopathic
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795, Gulabrao Patil Educational Campus,
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DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY ACADEMIC YEAR 2021-2022

STAFF LIST

Sr. No.	Name of Staff	Designation	Qualifiacation
01	Dr Mrs T. A Bidiwale	H.O.D & Professor	M D (HOM)
02	Dr. Uday A. Phatak	Guest Asso. Professor	M.D. (Med)
03	Dr. Dipti Patil	Asst. Professor	M.D.(Hom)
04	Mr N V Kolekar	Lab. Technician	M.Sc. D.M.L.T




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DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY ACADEMIC PLANNER 2021-2022

LESSON PLANNER FOR THE MONTH OF MARCH-2022

BODY FLUID AND RETICULO-ENDOTHELIAL SYSTEM

- Lect 1. Body fluids-compartments
- Lect 2. ECF and ICF
- Lect 3. Lymph, Formation and Function of Lymph
- Lect 4. R.E.Cells and system- Function
- Lect 5. Spleen structure and Function
- Lect 6. PH- Acid – Base Balance
- Lect 7. Regulation Equation of Acid Base Balance.
- Lect 8. Revision/ Tutorial.

BLOOD

- Lect 9. Iron, Absorption and Transport, functions, Anemia, Polycythemia.
- Lect 10. Leucocytes or WBC
Classification and DLC
Granulocytes and Agranulocytes
- Lect 11. Development of Leucocytes
Granulocytes, Lymphocytes and Monocytes
Life, Fate and Functions of WBC
- Lect 12. Abnormal variation in WBC. Thrombocytes, methods of Counting platelets, functions of platelets, purpura Immunity.
- Lect 13. Blood Transfusion, Blood group, Blood Bank.
- Lect 14. ABO group, Clinical importance,
Hemolytic disease of new born, M.N.Factors
- Lect 15. Importance of Blood Group studies.
Hazards of Incompatible Blood Transfusion
- Lect 16. Revision / Tutorial.




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ACADEMIC PLANNER

2021-2022

LESSON PLANNER FOR THE MONTH OF APRIL-2022

CENTRAL NERVOUS SYSTEM

- Lect 1. Properties of nerve fiber, action potential, nerve excitability.
- Lect 2. Conduction of Nerve Impulse, saltatory conduction, All-or-none law, Refractory period.
- Lect 3. Synapse, Types, Nerve Anatomy and Mechanism of transmission of impulse across synapse.
- Lect 4. Properties of synapse, synaptic inhibitors.
- Lect 5. Degeneration and Regeneration of nerve fibers.

ENDOCRINE SYSTEM

- Lect 6. Adrenal Cortex and Medulla.
- Lect 7. Pituitary gland, Structure and Function
- Lect 8. Neurohypophysis.
- Lect 9. Hypothyroidism, Hyperthyroidism,
- Lect 10. Thyrotoxicosis, functions of Thyroid Gland.

REPRODUCTIVE SYSTEM

- Lect 11. Physiology of testes and ovary.




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ACADEMIC PLANNER

2021-2022

LESSON PLANNER FOR THE MONTH OF JUNE-2022

REPRODUCTIVE SYSTEM

- Lect 1 Spermatogenesis , control fate.
- Lect 2 Corpus luteum
- Lect 3 Pregnancy- Physiology, Placenta , CG, HCG
- Lect 4 Foetal Endocrine System, Foetal Circulation
- Lect 5 Reproduction of Planned Family

ENDOCRINE SYSTEM

- Lect 6 Parathyroid gland, Hyperparathyroidism, Hypoparathyroidism
- Lect 7 Diabetes Mellitus
- Lect 8 Heparin, Prostaglandin, Thymus
- Lect 9 Revision.

CENTRAL NERVOUS SYSTEM

- Lect 10 Nerve endings, Receptors, Types of Receptor
- Lect 11 Characteristic of Receptors, Generation.
- Lect 12 Cutaneous Receptors, Pain, Receptors and Muscle Spindle, Tendon.
- Lect 13 Spinal cord, Structure and Function
- Lect 14 Reflexes, Reflex action, Types of reflex
- Lect 15 Stretch reflexes, flexor, reflex, crossed extensor reflexes
- Lect 16 Meninges, CSF, Ventricles.




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2021-2022

LESSON PLANNER FOR THE MONTH OF JULY-2022

SKELETO-MUSCULAR SYSTEM

- Lect 1 Properties of Skeletal Muscles
- Lect 2 Factors affecting development of tension
- Lect 3 Energy Metabolism of Muscles

CENTRAL NERVOUS SYSTEM

- Lect 17 Recap of CNS
- Lect 18 Structure and function of Medulla and Mid Brain
- Lect 19 Connection and functions of Hypothalamus
- Lect 20 Connection of Cerebellum
- Lect 21 Basal Ganglia
- Lect 22 Ascending Tracts.

SPECIAL SENSES

- Lect 1 Physiology of Taste
- Lect 2 Physiology of Smell
- Lect 3 Ear- External and internal Ear




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DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY ACADEMIC PLANNER

2021-2022

LESSON PLANNER FOR THE MONTH OF AUGUST-2022

SPECIAL SENSES

- Lect 4. Olfaction
- Lect 5. General Anatomy of Eye
- Lect 6. Rhodopsin cycle and night blindness
- Lect 7. Accommodation
- Lect 8. Visual pathway


METABOLISM –LIPIDS

- Lect 14. Lipids classification and functions
- Lect 15. Fatty Acids types and functions
- Lect 16. Digestion and Absorption of Lipids
- Lect 17. Fat stores, Adipose tissue, Liver
- Lect 18. Mobilisation of Lipids
- Lect 19. Beta oxidation of fatty acids
- Lect 20. Ketoacidosis, synthesis of Lipids

CENTRAL NERVOUS SYSTEM

- Lect 23. Limbic System, Structure and parts
- Lect 24. Autonomic Nervous System- sympathetic
- Lect 25. Autonomic Nervous System-Parasympathetic
- Lect 26. Reticular Formation
- Lect 27. Cerebral Cortex- various areas.




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DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY ACADEMIC PLANNER 2021-2022 LESSON PLANNER FOR THE MONTH OF SEPTEMBER-2022

CENTRAL NERVOUS SYSTEM

- Lect 28. Posture and Equilibrium Maintenance
Lect 29. EEG, Sleep, Memory.

METABOLISM

- Lect 21. Cholesterol synthesis and Breakdown
Lect 22. Phospholipids and Lipo proteins
Lect 23. Atherosclerosis and Hormonal Influences on Lipid Metabolism

NERVE MUSCLE PHYSIOLOGY

- Lect 1. Structure and Function of Nerve Cell
Lect 2. Degeneration.




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ACADEMIC PLANNER

2021-2022

LESSON PLANNER FOR THE MONTH OF OCTOBER-2022

CENTRAL NERVOUS SYSTEM

- Lect 30. Revision
Lect 31. Revision.

NERVE MUSCLE PHYSIOLOGY

- Lect 3. Revision

METABOLISM

- Lect 24. Hormonal Influences on Lipid Metabolism
Lect 25. Revision of Lipids
Lect 26. Nucleic Acids
Lect 27. Structure and Degradation of Nucleic Acids
Lect 28. Uric acid, Gout
Lect 29. Formation of Purine and Pyrimidine Bases




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2021-2022

LESSON PLANNER FOR THE MONTH OF NOVEMBER-2022

DIGESTIVE SYSTEM

- Lect 1. General Introduction, Functions of digestive system, Tongue, Functions of Tongue. Functions of Salivary Glands
- Lect 2. Composition and Function of Gastric Juice, Bile.
- Lect 3. Bile Composition and Function
- Lect 4. Pyloric Pouch
- Lect 5. Disturbances in swallowing, movement of Stomach
- Lect 6. Ileocecal sphincter, movement of villi
- Lect 7. Defecation.
- Lect 8. Revision

RESPIRATORY SYSTEM

- Lect 9 Anatomical and Physiological Dead Space.
- Lect 10. Mechanism of Breathing
- Lect 11. Lung Volumes and Capacities
- Lect 12. Carbon Dioxide carriage and CO₂ dissociation curve.
- Lect 13. Nervous Control of Respiration
- Lect 14. Chemical Control of Respiration.

CARDIOVASCULAR SYSTEM

- Lect 15. Introduction to Circulation and its functions
- Lect 16. Anatomical consideration of Heart
- Lect 17. Special junctional tissues of Heart.
- Lect 18. Structure and Properties of Cardiac Muscle.



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LESSON PLANNER FOR THE MONTH OF DECEMBER-2022

METABOLISM – CARBOHYDRATES

- Lect 1. Structure, Classification and Properties of Carbohydrates
- Lect 2. Digestion and Absorption of Carbohydrates
- Lect 3. Metabolism of Glucose and Glycolysis
- Lect 4. Krebs's Cycle and HMP pathway
- Lect 5. Glycogenesis, Glucogenolysis.
- Lect 6. Neo-Glucogenesis, Blood Sugar Regulation

METABOLISM-PROTEIN

- Lect 7. Proteins Classification, Properties of Proteins
- Lect 8. Amino acids, types and Classification
- Lect 9. Isoelectric PH, Electrophoresis
- Lect 10. Digestion of Proteins
- Lect 11. Absorption of Proteins and Amino acids force.
- Lect 12. Transamination, Deamination, Urea Cycle
- Lect 13. Protein synthesis and structure of protein

CARDIOVASCULAR SYSTEM

- Lect 14. Cardiac Cycle
- Lect 15. Pressure and Volume Changes during Cardiac Cycle
- Lect 16. Jugular venous pressure.
- Lect 17. Heart Sounds
- Lect 18. ECG

RESPIRATORY SYSTEM

- Lect 19. Cyanosis
- Lect 20. Asphyxia




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RENAL SYSTEM

- Lect 1. Structure of kidney.
- Lect 2. Function of kidney.
- Lect 3. Renal circulation.
- Lect 4. Formation of urine.
- Lect 5. Countercurrent mechanism in renal system.
- Lect 6. Micturition reflex.
- Lect 7. Renal function test.
- Lect 8. Dialysis, diuretics and other renal disorders.

SKIN

- Lect 9. Structure of skin.
- Lect 10. Function of skin.
- Lect 11. Body temperature regulation.
- Lect 12. Revision.
- Lect 13. Revision.




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DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY ACADEMIC PLANNER 2021-2022 LESSON PLANNER FOR THE MONTH OF FEBRUARY-2023

REVISION

- Lect 1. Revision of Cardiovascular System
- Lect 2. Revision of Respiratory System
- Lect 3. Revision of Digestive System
- Lect 4. Revision of Excretory System
- Lect 5. Revision of Haematology
- Lect 6. Revision of Endocrine System
- Lect 7. Revision of Reproductive System
- Lect 8. Revision of Central Nervous System
- Lect 9. Revision of Skin and Body Temperature Regulation
- Lect 10. Revision of Biophysics, R.E System.
- Lect 11. Revision of Lymph, Spleen.




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DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY SYLLABUS DISTRIBUTION Academic year; 2021-2022

THEORETICAL

Dr. T.A. Bidiwale

1. Introduction
2. Nerve
3. Respiratory system
4. Endocrine
5. Reproductive system
6. Central nervous system
7. Digestive system

1. Introduction;

Introduction to physiological principles. Life processes, Homeostasis . cell structure, organelles, cell membrane, composition and function. Transport of substances across cell membrane, active transport na-K pump, osmosis, hypertonic, hypotonic, isotonic solution. D ionic equilibrium.

2. Nerve;

Structure and function of nerve cell.

Bioelectric phenomena in the nerve and muscle. R.M.P. action and its propagation, neuromuscular transmission. Classification and properties of nerve fibres. Wellerian degeneration, regeneratiuon and reaction of degeneration.

Skeleto-muscular; classification of muscle fibre. Properties of skeletal muscle.

3. Respiratory system;

Anatomical and Physiological dead space. Mechanism of breathing. Lung volume and capacities. Carbon dioxide carriage and co2 dissociation curve. Nervous control of respiration. chemical control of respiration. cynosis. Asphyxia. caisson's disease. Dyspnoea and periodic breathing. Pulmonary circulation. Artificial respiration. pulmonary function tests.

4. Endocrine;

Physiology of pituitary, thyroid, parathyroid, pancreas , adrenal cortex and medulla. Regulation of secretion of endocrine glands. Hypothyroidism, hyperthyroidism, thyrotoxicosis, functions of thyroid. Hyperparathyroidism. Diabetes mellitus.

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5.Reproductive system;

Introduction in general and types of reproduction. Physiology of testes and ovaries. Physiology of menstruation, Pregnancy and lactation. Placenta and its function, foetal circulation and respiration.

6.Central nervous system;

General organization, structure and function of nerve cell and neuralgia. Cerebrospinal fluid. Physiology of synapse and receptor organs. Physiology of reflex action- classification properties etc. of reflexes. Sensory and motor tracts and effects of secretion, transection and hemisection of spinal cord. Spinal, decerebrate and decorticate preparation and regulations of posture and equilibrium. Reticular formation, cerebellum and basal ganglia. Sensory and motor cortex. Physiology of voluntary movements. Higher function of cortex; sleep and wakefulness, EEG, memory, speech, learning. Physiology of thalamus and hypothalamus and limbic system. Physiology of autonomic nervous system, peripheral and central mechanism.

7.Digestive system;

General introduction, organization plan and evolutionary significance.

Composition, function and regulation of salivary, gastric, pancreatic, intestinal and biliary secretions. Movements of G.I. tract. Absorption of G.I. tract. Physiology of Liver and Gall bladder structure and function

Dr Dipti Patil

1.Environmental Physiology

2.Haematology

3.Cardiovascular system

4.Excretory system

5.Special senses

6. Lymphatic system

1.Environmental Physiology;

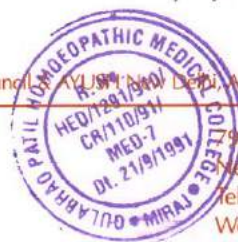
Skin-structure and function

Regulation of body temperature, hypothermia.

2.Haematology;

Composition and functions in general. Physiology of plasma proteins, normal values. ESR and other blood indices. Physiology of RBC, WBC, and platelets formation, fate. Functions of formed elements of blood. Anemia, haemoglobin, polycythemia. Body fluid compartments, their measurements, blood volume and its regulation. ABO and Rh blood group systems. Coagulation and haemostasis. Lymphatics and RE system.

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3. Cardiovascular system;

Structure and properties of cardiac muscle. Generation and conduction of cardiac impulse, ECG. cardiac cycle with reference to pressure, volume changes, heart sounds etc. Heart rate and its regulation. Haemodynamics, BP and its regulation. nervous and chemical control of blood vessel. Physiological basis of shock.

4. Excretory system;

General introduction, structure and functions of kidney. Mechanism of formation of urine. Mechanism of concentration and dilution of urine. Physiology of micturation.

5. Special senses;

Physiology of taste, smell. Vision Ear- general anatomy, conduction of sound waves through external, middle and internal ear. Peripheral and central mechanism of hearing and auditory pathways. general anatomy refractory media and protective mechanism in eye. Formation, circulation and function of aqueous humor. Physiology of optics, formation of image, accommodation errors of refraction, acuity of vision. physiology of retina, dark and light adaption, photochemistry of vision, color vision. Visual pathway and effect of various levels.

Vitamins-water soluble and fat soluble. Hypovitaminosis.

6. Lymphatics and RE System

By Dr. Uday Phatak BIOCHEMISTRY

Biochemical principles and elementary constituents of protoplasm. chemistry of proteins. Chemistry of carbohydrates. chemistry of lipids. Enzymes and vitamins. Metabolism of proteins, fats, carbohydrates, minerals.

Vitamins-water soluble and fat soluble. Hypovitaminosis

Dr. Uday Phatak

Skeleto-muscular; classification of muscle fibre. Properties of skeletal muscle.

PRATICALS

Dr T.A. Bidiwale

1. Haematology
2. Biochemistry

Dr. Dipti Patil

1. Clinical
2. Instruments.




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Academic Year 2021-22

List of Books in Department

- 1) Samson Wrights -Applied Physiology
- 2) Exercise Physiology- William Mcardle
- 3) Textbook of Medical Physiology- Prof. G.K. Pal
- 4) Textbook of Medical Physiology- Prof. G.K. Pal- part I
- 5) Textbook of Medical Physiology- Prof. G.K. Pal- part II
- 6) Anatomy & Physiology in Health & Illness- Ross & Wilson
- 7) Harpers Biochemistry- Murray
- 8) Concise Medical Biochemistry- Sucheta P. Dandekar
- 9) Human Physiology- B J Meyer
- 10) Textbook of Medical Physiology –Indu Khurana (2 copies)
- 11) Textbook of Practical Physiology – C.L.Ghai (2 copies)
- 12) Handbook of Experimental Physiology & Biochemistry- Dr P V Chadha
- 13) Medical Physiology- R.K. Maurya
- 14) Review of Medical Physiology- William Ganong
- 15) Prep Manual for Undergraduate physiology- Vijaya Joshi
- 16) Human Physiology-vol- I-Dr C C Chatterjee (2 copies)
- 17) Human Physiology-vol-II-Dr C C Chatterjee (3 copies)
- 18) A Handbook of Practical Physiology-Dr P D Ranbhise
- 19) Human Physiology-Andrew Davies
- 20) Concise Medical Physiology- Chaudhari
- 21) Biochemistry-Pankaja Naik
- 22) Essentials of Biochemistry- Pankaja Naik
- 23) Medical Physiology-Asis Das
- 24) Textbook Of Medical Physiology- Guyton.
- 25) Concise Medical Physiology- Guyton -Hall
- 26) Principles of Anatomy & Physiology- Toratora
- 27) Grays Anatomy
- 28) Handbook of general Anatomy- B D Chaurasia.
- 29) Textbook of Biochemistry-Dr K. Rambabu
- 30) Textbook of Medical Biochemistry-M.N. Chatterjee
- 31) Fundamentals of Biochemistry-Dr.A.C.Deb
- 32) Essentials of Medical Physiology-K Sembulingam(3)

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- 33) Biochemistry for clinical Medicine-Ira Thabrew
- 34) Textbook of Biochemistry-DM Vasudevan
- 35) Practical Biochemistry—Geeta Damodaran(2)
- 36) Hutchinsons Clinical Methods
- 37) Biochemistry- U.Satyanarayana

Complimentary Copies:-

- 1) Last minute Revision Biochemistry- Saumya & Anurag Shukla
- 2) Comprehensive Textbook of Medical Physiology Vol I- G.K.Pal
- 3) Comprehensive Textbook of Medical Physiology Vol II-G.K.Pal
- 4) Ghai's Textbook of Practical Physiology-Revised & Edited by V.P.Varshney, Mona Bedi.
- 5) Physicon- Sanoop K.S, Mridul G.S, Nishanth P.S
- 6) Physiology Prep Manual for undergraduates- Vijaya Joshi,
Sadhana Joshi- Mendhurwar- 5th & 6th Edition
- 7) Viva Voice in Biochemistry- S. Kavitha
- 8) Practical Physiology Book- M.Chandrashekar, Nitesh Mishra
- 9) Last Minute Revision Physiology-Saumya & Anurag Shukla
- 10) Textbook of Biochemistry- D.M.Vasudevan.
- 11) LPR Fundamentals of Medical Physiology-L. Prakasam Reddy.




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Ref. No. :

Date :

DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY ACADEMIC YEAR – 2021-22

LIST OF MODELS

WET MODELS

- 1) Optic Tract
- 2) Right & Left Lung
- 3) Saggital Section of Head-Neck & Brain.
- 4) Liver with Gall Bladder.
- 5) Tongue Thorax
- 6) Right & Left Kidney & Abdominal Aorta
- 7) Omentum.
- 8) Stomach.
- 9) Thyroid, Corticoid, & Larynges
- 10) Small Intestine.
- 11) Brain & Spinal Cord.

MODELS

- 12) Ear
- 13) Heart
- 14) Eye
- 15) Kidney




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DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY ACADEMIC YEAR – 2021-22 LIST OF CHARTS

Cell & Tissues	
SR. NO.	NAME
1)	Cell
Blood	
1)	Blood cells (Haemopoiesis)
2)	Blood clotting factors and mechanism of clotting
3)	Scanning electron micrograph of blood cells
4)	Composition and functions of Blood
5)	Determination of blood groups
6)	Symptoms of anemia
Cardiovascular system	
1)	Aorta & its primary branches
2)	Principle veins
3)	Hepatic portal circulation
4)	Anterior view of heart
5)	Cardiac cycle
6)	Area of Auscultation of Heart
7)	Pulse points
8)	General plan of circulation
9)	Normal ECG of single heart beat
10)	Cardiac Dysrhythmia
Respiratory system	
1)	Bucket handle movement of Respiration
2)	Portion of Lobule of Lung
3)	Structure of alveolus
Digestive System	
1)	Digestive enzymes
2)	Location of salivary glands
3)	Stages of Deglutition
4)	Balanced Diet (food guide pyramid)

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Excretory System	
1)	Cortical Nephron
2)	Renal circulation
3)	Countercurrent concentration of urine
Endocrine System	
1)	Location of Endocrine glands
2)	Anterior View of Thyroid gland
3)	Female Reproductive System
4)	Developmental Changes of Ovarian Cycle
5)	Stages of Spermatogenesis
6)	Thyroid hormone abnormalities
7)	Adrenal Cortical Hormone abnormalities
8)	Growth Hormone Abnormalities
9)	Male Reproductive System
Nervous System	
1)	Neuron
2)	Meninges & Ventricles of Brain
3)	Functional Areas of Cerebrum
4)	Autonomic nervous system
5)	Direct(Pyramidal)Pathway
6)	Neuromuscular Junction

Special Senses

- 1) Tongue
- 2) Structure of Ear
- 3) Skin
- 4) The Eye ball and layers of retina
- 5) Ishihara chart
- 6) Anterior View of Lacrimal Apparatus
- 7) Optic Pathway
- 8) Structure of taste bud
- 9) Snellen's Chart

R.E. SYSTEM

- 1) Lymphatic System and structure of lymph node
- 2) Composition of lymph



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BIOCHEMISTRY

- 1) Krebs cycle

PIONEERS OF PHYSIOLOGY

- 1) Jan Baptista Van Helmont
- 2) Ida Henrietta Hyde
- 3) William P. Murphy
- 4) Richard Bright
- 5) Mario Capecchi

CLINICAL CHARTS

- 1) Check Your Own Eyes.
- 2) Check Your Own Tongue.
- 3) Check Your Own Nails
- 4) Check Your Own Nose.

NORMAL VALUE DISPLAY CHARTS

- 1) Blood sugar level
- 2) Atmospheric Pressure
- 3) Urine Output
- 4) Normal GFR
- 5) 1st Heart sound
- 6) RBC count
- 7) Blood Urea
- 8) Heart rate
- 9) 2nd Heart sound
- 10) Blood Pressure



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- 11) WBC count
- 12) Normal Body Temperature
- 13) Salivary Secretion
- 14) Cardiac cycle time
- 15) Cardiac Output
- 16) Respiratory Rate
- 17) Tidal Volume
- 18) Platelet count.

ELECTRICAL CHART

1. Structure of heart




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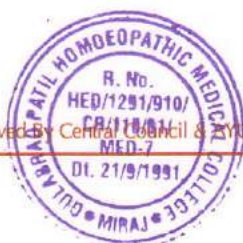
Ref. No. :

Date :



DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY ACADEMIC YEAR – 2021-22 LIST OF INSTRUMENTS

Sr. No.	Name of Article	Quantity
1	Microscope with oil immersion	35
2	Equipment for ESR estimation/Westerngreen pipette for ESR	25
3	Haematocrite Tubes	30
4	Autoanalyzer/Semi autoanalyzer	01
5	Haemoglobinometer	52
6	Haemocytometer	50
7	Sphygmomanometer	50
8	Stethoscope	25
9	Clinical thermometer (Digital)	25
10	Knee-Hammer	25
11	Tuning Fork	2 Sets
12	Stethographs and Pneumographs	05
13	Electrocardiograph Machine	01
14	Electronic Stopwatch	04
15	Glass Distillation(double apparatus)	01
16	Centrifuge Medium speed	02
17	Colorimeter(Photoelectric)	02
18	PH Meter(electric)	01
19	Colour Perception lantern(Edridge green)	01
20	Incubator	01
21	Educational CD	As require
	DVD	As require
	Films	As require
	Slides	As require
	Models	As require
	Audio VisualAids	As require
22	Perimeter	03
23	Spirometer	01
24	Tonometer	01
25	Handgrip Dinamometer	01
26	Bicycle ergometer	01
	Facility for Animal Experiments demonstration with the help of audio visual aids	Available
	No. of additional items available	10




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LIST OF INSTRUMENTS

Biochemistry

Sr. No.	Name of Article	Quantity
1	Monopan balance	01
2	Centrifuge	01
3	Chemical balance	01
4	Water Baths	02
5	Urinometer	25
6	Hydrometer	02
7	Albuminometer	20
8	Glucometer	20
9	Thermometer	10
10	Colorimeter	01
11	Hot air oven	01
12	Doubal Dist. Apparatus	01
14	Pipette	10
15	Burette	10
16	Wire gauze	10
17	Beakers	25
18	Flasks	25
19	Burners	24
20	Rubber Tubing	Available
21	PH Meter	01
22	Stands	03
23	Clamps	04




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DEPARTMENT OF PHYSIOLOGY & BIOCHEMISTRY ACADEMIC YEAR – 2021-22 List Of Transparencies

SR.NO.	NAME	SR.NO.	NAME
01	Receptors-Types	11	Extrapyramidal tract
02	Receptor Potential-Action Potential –Properties	12	Difference between pyramidal & extrapyramidal tract
03	Ascending Tracts	13	Upper motor neuron & Lower motor neuron paralysis
04	Descending tracts	14	Tracts of Spinal cord
05	Tract of Goll & Burdach	15	T.S of spinal cord
06	Lat/Dorsal Spinothalamic Tract (2)	16	Neurons in Gray Horn of spinal cord
07	Ventral/Ant. Spinothalamic Tract (2)	17	Ascending tracts of spinal cord
08	Cerebellar Tracts (Flechsig's & Gower's Tract)	18	Hypothalamus
09	Difference between posterior column tract & Anterolateral spinothalamic tract	19	Clotting factors.
10	Pyramidal tract		




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