

HUMAN

PHYSIOLOGY



VOL. I

CONTENTS

Introduction to physiology.....	1	<i>Respiratory system</i>	
Synopsis of Study.....	1	<i>Digestive system and Metabolism</i>	
<i>Hemopoietic system</i>	1	<i>Excretory system</i>	
<i>Reticulo-endothelial and Lymphatic systems</i>	2	<i>Endocrine and Reproductive systems</i>	
<i>Skeletal and Muscular systems</i>	2	<i>Nervous system and Special senses</i>	
<i>Circulatory system</i>	2		

CHAPTER I

CELL

Protoplasm.....	5	Simple epithelium.....	
Structure of a cell.....	6	Mechanism of Ciliary movement.....	
Cytoplasm.....	7	Glands.....	
Cytoplasmic inclusions.....	7, 20	Compound epithelium.....	
<i>Cytoplasmic organelles</i>	7	Connective (Mesenchymal) tissue.....	
Plasma membrane.....	7	Tonsil (Capsulated lymphatic tissue).....	
Endoplasmic reticulum (Ergastoplasm).....	8	Ossous tissue or bone.....	
<i>Microsome and microsomal fractions</i>	9	<i>Ossification (Development of bone)</i>	
Golgi apparatus (complex).....	9	<i>Factor controlling calcification of bones</i>	
Mitochondria.....	10	<i>Composition of bone</i>	
Lysosomes.....	12	<i>Teeth</i>	
<i>Ribosomes or Claude's particles</i>	13	Muscular tissue.....	
Centrosome (Cytozentrum of Cell centre).....	14	Skeletal muscle.....	
Plasmakin.....	14	Cardiac muscle.....	
Vacuoles.....	14	Visceral muscle.....	
Nissl bodies (Granules).....	14	Nervous tissue.....	
Nucleus.....	15	Medullated (Myelinated) fibres.....	
Chromosomes.....	19	Non-medullated (Amyelinated or Gr fibre).....	
Cell division (Nuclear division).....	21	Special structural features of cells.....	
<i>Formation of Tissue, Organ and System</i>	23	Cancer cell (Malignant neoplasm).....	
Elementary tissues of the Human Body.....	24		
Epithelial tissue.....	24		

CHAPTER II

ELEMENTARY COMPOSITION OF THE HUMAN BODY (BIOCHEMISTRY)

Proximate principles.....	71	Properties of lipids.....	
Proteins.....	71	<i>Physical and Chemical properties of lipids</i>	
Simple proteins.....	71	Carbohydrates.....	
Conjugated proteins.....	72	Monosaccharides or simple carbohydra or simple sugars.....	
Derived proteins.....	74	General properties of carbohydrates.....	
Properties of proteins.....	75	<i>Physiologically important monosaccharides</i>	
Formation of protein molecule.....	76	Compound carbohydrates.....	
Amino acids and <i>Classification of amino acids</i>	77	Simple compound carbohydrates.....	
Structure of protein molecule.....	78	Oligosaccharides.....	
Molecular weights of proteins.....	79	<i>Disaccharides</i>	
Virus proteins.....	79	<i>Trisaccharides and Tetrasaccharides</i>	
<i>Isosmotic point or pH</i>	80	More complex compound carbohydrate Polysaccharides.....	
Electrophoresis.....	80	Starch.....	
Chromatography.....	81	<i>Glycogen and Dextrin</i>	
Lipids and Fats.....	82	<i>Cellulose and Inulin</i>	
Simple and Compound lipids.....	83	<i>Heterosaccharides</i>	
Steroids or sterols.....	85	<i>Enzymes</i>	
Cholesterol.....	86		
<i>1, 2, 3 carbons</i>	87		