Contents

Preface(v)

Chapter 1: Nervous Tissue

Overview of nervous system, Functions of nervous system, Organization of nervous system, Coverings of the Central Nervous System (CNS), Neurons, Neuroglia, Membrane potential, Synapse, Neurotransmitters, Receptors, Ligand's

Chapter 2: Central Nervous system

Overview of the Central Nervous System; Brain: Covering Membranes (Meninges), Cerebrospinal fluid (CSF); Ventricles of brain; Structural Features of Brain: Olfactory Lobes, Cerebrum, Basal Ganglia (Extrapyramidal Pathway), The Diencephalon, Mid Brain, Cerebellum, Pons varolii (Pons-bridge); Reticular formation; Limbic System; Blood Brain Barrier; Electroencephalogram; Human spinal cord; Reflex actions; Functions of afferent and efferent nerve tracts; Diseases of Brain

Chapter 3: Digestive System

Layers of Gastrointestinal tract, Neural innervations of the GIT, Peritoneum, Anatomy of GIT, Enzymes and other Exocrine Secretions, Digestion of Carbohydrates, Digestion of Proteins, Digestion of Fats, Bile, Absorption of Nutrients, Role of large intestine in digestion and absorption, Liver, Feces and Defecation Reflex, Mobility of GIT, Gross and Physiological Calorific Value, Diseases of GIT

Chapter 4: Energetics

Adenosine tri phosphate, Formation of ATP, Cellular respiration (Aerobic respiration), Anaerobic respiration, Energy yield in aerobic and anaerobic respiration, Functions of ATP, Creatine Phosphate, Formation of Creatine phosphate, Elimination of Creatine Phosphate, Advantages of Creatine phosphate, Disadvantages of Creatine phosphate, Basal Metabolic Rate, BMR Calculation, Factors affecting BMR, Significance of BMR

Chapter 5: Respiratory System

Definitions, Process of Respiration, Anatomy of the Respiratory System, Lung Volumes and Capacities, Exchange of gases, Transport of gases in blood, Regulation of Respiration, Artificial respiration and resuscitation methods, Diseases of Respiratory System

93

1 of

25

57

107

Chapter 6: Urinary System

Urinary system, Functions of Urinary system, Anatomy of Urinary system, Formation of urine, Transportation of urine, storage and elimination, Micturition and Micturition reflex, Characteristics of Urine, Role of kidneys in Acid – Base balance, Renin-Angiotensin-Aldosterone System, Disorders of Kidney