

**ANATOMY AND PHYSIOLOGY**

**UNIT : I**

Meaning of Anatomy and Physiology – Need and Scope of Anatomy and Physiology in Physical Education – Cell – Structure and Functions – Tissues – Types and Function

Muscular System – Types of Muscles: Skeletal Muscle, Cardiac Muscle, and Smooth Muscle.

**UNIT : II**

Skeleton : Meaning and Functions – Bones : Classification and Functions - General Features of Various Bones: Vertebral Column, Pelvic Bone, Radius and Ulna, Sacrum, Femur and Bones of Skull – Joints: Definition and Classification of Joints

**UNIT : III**

Nervous System : Neuron – Central Nervous System (CNS): Brain and Spinal Cord – Peripheral Nervous System (PNS): Cranial Nerves and Spinal Nerves – Digestive System : Structure & Functions – Digestive Process – Liver, Pancreas – Functions

**UNIT : IV**

Respiratory System – Respiration – Respiratory Track – Alveoli – Lungs: Structure & Functions – Gas Exchange – Vital Capacity

Circulatory System – Heart: Structure & Functions – Cardiac Cycle, Cardiac Output, Stroke Volume

**UNIT : IV**

Endocrine Glands – Functions of Endocrine Glands: Pituitary, Thyroid, Para-Thyroid, Thymus, Pancreas, Adrenal, & Sex – their role, in growth, development and regulations of body functions

**Books for References :**

1. Guyton A.C., Functions of the Human Body, London, W.B. Saunders Company, 1969
2. Dr.V. Selvam “Anatomy and Physiology” Bodinayakanur.
3. Dr. N.M. MUTHAYYA “Physiology” J.J. Publications, Madurai.
4. SEELEY et. al Anatomy and Physiology Mc Graw Hill.
5. Srivastava et. al, Text Book of Practical Physiology, Calcutta Scientific Book Agency, 1976