ANATOMY, PHYSIOLOGY AND HEALTH EDUCATION

1. **Cell physiology**
   Cell, Cell junctions, transport mechanisms, homeostasis, ion channels, secondary messengers.

2. **The Blood**
   Composition and functions of blood, RBC, WBC, platelets. Homeostasis, blood groups, mechanism of clotting. Introduction to disorders of blood.

3. **Gastrointestinal tract**
   Structure of the gastrointestinal tract, functions of its different parts including those of liver, pancreas and gall bladder, various gastrointestinal structures and their role in the digestion and absorption of food.

4. **Respiratory System**
   Structure of respiratory organs, functions of respiration mechanism and regulation of respiration, respiratory volumes and vital capacity.

5. **Autonomic nervous system**
   Physiology and functions of the autonomic nervous system. Mechanism of neurohumoral transmission in ANS.

6. **Sense organs**
   Structure and physiology of eye (vision), ear (hearing), taste buds, nose (smell) and skin.

7. **Skeletal System**

8. **Central Nervous system**
   Functions of different parts of brain and spinal cord. Neurohumoral transmission in the central nervous system, reflex action, electroencephalogram, specialized functions of the brain, cranial nerves and their functions.

9. **Urinary System**

10. **Endocrine Glands**
    Basic anatomy and physiology of pituitary, thyroid, parathyroid, adrenal glands and pancreas. Local hormones. Brief introduction to disorders of various endocrine glands.

11. **Reproductive System**
    Structure and functions of male and female reproductive system. Sex hormones, physiology of menstrual cycle, and various stages of pregnancy and parturition.
12. **Cardio vascular system**
Anatomy of heart and blood vessels, physiology of blood circulation, cardiac cycle, conducting system of heart, heart sound, electrocardiogram, blood pressure and its regulation.

13. **Lymphatic system**
Composition, formation and circulation of lymph. Spleen and its functions.