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| **Week** | **Date of Class** | **Unit to be Covered and/or Other Activity** |  |
| **W1** | **-3-2023** | **Introduction to Human Physiology**: 1.1. Introduction of Physiology  **1.2. Physiology of Body fluids(water) and electrolyte** 1.2.1. Definitions, Composition of body fluids1.2.2. Types of body fluids, 1.2.3. Electrolytes of the body fluids 1.2.4. Movement of, body fluids  1) Hydrostatic pressure 2) osmotic pressure.1.2.5 Regulation of Water Output 1.2.6 Disorders of water imbalance.  |  |
| **W2** | **-3-2023** | **Physiology of Digestive System**: 2.1. Composition and Functions of Salivary Secretion 2.2. Swallowing2.3. Gastric Secretion.2.4. Digestion and Regulate the Secretion.2.5. Digestion and Absorption in Small Intestine Secretion, Digestion and Absorption in Large Intestinal, 2.6.2.7. Function of Liver, Pancreas and Gallbladder 2.8. Movement of Digestive Material 2.9. Control of Digestive Functions |  |
| **W3** | **-3-2023** | **Physiology of Muscular System:**  3.1. Study the general function of the Muscles. 3.2. Types and functions of different parts of these organs.  3.3. Contraction of skeletal muscles. 3.4. Sliding theory and its steps. 3.5. Action potential and ions fluxes. 3.6. muscular performance. 3.7. Muscle tone. 3.8. Source of energy stored in muscles. 3.9. Hormones and muscle. |  |
| **W4** | **-4-2023** | **Physiology of Respiratory system**4.1. Types of respiration4.2. Pulmonary ventilation or respiratory cycle 4.3 Factors Control Gases Pressure4.4. Respiratory Muscles4.5. Volume of pulmonary air space 4.6. Calculation of pulmonary ventilation in health and disease 4.7. Gases transport 4.8. Factors Affecting the Affinity of Hemoglobin to Oxygen4.9. control of respiration |  |
| **W5** | **-4-2022** | **Physiology of The Cardiovascular System Part1:** 5.1. Study the functional properties of the heart.5.2. Action potential of the cardiac muscle.5.3. Conductivity and conducting system. 5.4. Rhythmicity.5.5. Cardiac pacemaker.5.6. Heart rate, factor effecting heart rate.5.7. Cardiac cycle.5.8. Heart sound.5.9. Electrocardiogram. |  |
| **W6** | **-4-2023** | **Physiology of The Cardiovascular System Part II:**6.1. Study the General function of the Blood Vessels6.2. Heamodynamic6.3. Factor effecting of blood flow6.4. Types of blood flow6.5. Types of blood pressure6.6. Regulation of blood pressure6.6.1. Neuronal6.6.2. Hormonal |  |
| **W 7** | **-4-2023** | **Physiology of Nervous System:** 7.1. Membrane potential.7.2. Types of membrane channels.7.3. Action potential.7.4. Synapses and Conduction of Nerve Impulses –action potentials.7.4.1. Types of synapses.7.4.2. Synapses activity. 7.5. Reflexes. 7.5.1. Component of Neural Reflexes. 7.5.2. Type of Reflexes. 7.5.3. Example of Reflexes.7.6. Autonomic nervous system7.7. Support and the protection of the brain |  |
| **W8** | **-5-2023** | **Physiology of The Urinary System**:8.1. Study the general function of the urinary system 8.2. The blood and nerve supply of the kidney8.3. The function of the kidney8.4. Urine formation8.4.1. Glomerular filtration8.4.2. Tubular reabsorption and secretion.8.5. The hormones that influence selective reabsorption.8.6. Control of blood pressure.8.7. Micturition |  |
| **W9** | **-5-2023** | **Blood physiology:**9.1. Overview of Blood9.2. Gaseous Exchange9.3. Blood composition9.3.1. Plasma9.3.2. Red Blood Cells9.3.3. White Blood Cells9.3.4. Platelets9.4. Hemostasis (Coagulation or Clotting)9.5. ABO Group System9.6. Surface Antigens, Inheritance, Compatibility in Blood/Plasma Transfusions9.7. Hemolytic Disease of the Newborn |  |
| **W10** | **-5-2023** | **Physiology of The lymphatic and immune system** 10.1. Lymph flow10.1.1, Lymph flow in the lymphatic vessels10.1.2. Lymph flow in the lymph nodes,10.2. Function of lymph nodes10.3. Function of spleen and thymus10.4. The Defense Mechanisms and Immunity10.4.1. Non Specific Defense Mechanisms (Innate Immunity =Native Immunity10.4.1.1. First line10.4.1.2. Second line10.5. Specific Defense Mechanisms (Acquired immunity = Adaptive immunity)10.6. Humeral Immunity (Antibody Mediated Immunity) |  |
| **W11** | **-5-2023** | **Physiology of The Endocrine System:**11,1. Types of Glands11.2. Function of endocrine system 11.3. Hormones:11.3.1 Characteristics of Hormones11.3.2. Functions of hormones11.3.3. Classification of hormones11.4. Mechanism of Hormone Action11.4.1. Internal receptors11.4. 2. External receptors11.5. Endocrine Glands & functions (Hypothalamus, Pituitary Gland, Thyroid Gland, pancreas, Adrenal Glands, Parathyroid Glands, Pineal glands, Gonads Male gonads are known as the testes, and ovaries in case of females. Testes, The placenta. |  |
| **W12** | -6-2023 | **Physiology of female reproductive System**12.1. The functions of the female reproductive system 12.2. Oogenesis12.3, Hormonal control of ♀ secondary sex characteristic12,4, Ovarian cycle12,5, Uterine Cycle (Menstrual Cycle) and Menstruation12,6, Fertilization12,7, Pregnancy12,8, labor process12,9, lactation |  |
| **W13** | -6-2023 | **Physiology of Male Reproductive System**13.1. Function13.1.1, Spermatogenesis Formation of sperm 13.1.2. Hormonal factors that stimulate spermatogenesis13,2, Maturation of sperm in the epididymis13.3. Storage of sperms13,4, Secretion and function of Male glands13,4, 1. Function of the seminal vesicles13,4, 2, Function of the prostate gland13,5, Semen – the fluid & sperm from the vas deferens13,6, Capacitation of the spermatozoa13,7, Testosterone and other male sex hormones |  |
| **W14** | -6-2023 | **Sens physiology**14.1. Cutaneous sensation14.2. physiology of vision14.3. physiology of hearing14.4. Taste bud physiology14.5. Smell physiology |  |
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