**M.5 Biology**

**Semester 1, 2020**

**Overview Sheet**

**Chapter 45: Skeletal, Muscular, and Integumentary System**

**45.1 The Human Body Plan**

Student Objectives:

1. Describe four types of tissues that make up the human body.
2. Explain how tissues, organs, and organ systems are organized.
3. Summarize the functions of the primary organs in the human body.
4. Identify the five human body cavities and organs each contains.

Vocabulary: *muscle tissue, skeletal muscle, smooth muscle, cardiac muscle, nervous tissue, neurons, epithelial tissue, connective tissue, organ, cranial cavity, spinal cavity, thoracic cavity, abdominal cavity, pelvic cavity*

**Chapter 46: Circulatory System**

**46.1 The Circulatory System**

Student Objectives:

1. Describe and label the structure and function of the heart.
2. Trace the flow of blood through the heart and body.
3. Distinguish between arteries, veins, and capillaries in terms of their structure and function.
4. Distinguish between pulmonary circulation and systematic circulation.
5. Summarize the functions of the lymphatic system.

Vocabulary: *cardiovascular system, lymphatic system, atrium, ventricle, valve, aorta, sinoatrial node, artery, blood pressure, capillary, vein, pulmonary circulation, systemic circulation, lymph*

**46.2 Blood**

Student Objectives:

1. List the components of blood.
2. Distinguish between red blood cells, white blood cells, and platelets in terms of their structure and function.
3. Summarize the process of blood clotting.
4. Explain what determines the compatibility of blood types for transfusion.

Vocabulary: *plasma, red blood cells (erythrocyte), hemoglobin, white blood cell (leukocyte), phagocyte, antibody, platelet, fibrin, blood type, antigen, Rh factor*

**46.3 Respiratory System**

Student Objectives:

1. Differentiate external respiration from internal respiration.
2. Trace the path of air from atmosphere to the bloodstream.
3. Describe how gases are exchanged in the lungs and transported in the bloodstream.
4. Summarize the skeletal and muscular changes that occur during breathing.
5. Describe how the rate of breathing is controlled.

Vocabulary: *Respiratory system, external respiration, internal respiration, lung, pharynx, epiglottis, trachea, larynx, bronchus, bronchiole, alveolus, inspiration, diaphragm, expiration*