Embryology and Development

1. Describe in accurate detail the process of fertilization.
2. Explain the stages of cell division and the processes that form the embryo.
3. Describe the process of implantation.
4. Define the embryonic stages and list the steps in the development of the embryo.
5. Describe the process of cell differentiation.
6. Define tissues that arise from each of the germ layers.
7. Explain the development of the placenta and the amnion.
8. Discuss the function of the placenta and the amnion.
9. Describe the development and function of the umbilical cord.
10. Explain how parturition date is determined.
11. Describe fetal circulation and compare to adult circulation.

Gestation and Parturition

1. Describe the mechanism that prevents loss of the uterine wall during pregnancy.
2. Define the hormones that control events during pregnancy and parturition.
3. List and define common problems associated with pregnancy.
4. Discuss current theories on the events leading to labor.

Digestive System

1. List the basic organs and structures contained in the digestive system.
2. List and define the accessory organs of the digestive system.
3. List the events that occur in the digestive system.
4. Describe the structures found in the oral cavity.
5. Describe the function of the stomach.
6. Describe the function of the small intestine.
7. Describe the function of the large intestine.
8. Identify and describe the enzymes that are included in the digestive system.
9. Locate on the cadaver and the cat the organs and structures of the digestive system.
10. Describe the histology of the digestive system.
11. Describe the functions of the liver.
12. Describe the functions of the pancreas.
13. Determine the digestive process involved for fats, proteins, and carbohydrates.
14. Describe the contribution of the digestive system to homeostasis.

Cardiovascular System: The Blood

1. Describe the nature and characteristics of blood.
2. Describe the flow of blood through the heart and blood vessels.
3. List the formed elements and define their function.
4. Describe, using the microscope, the characteristics of the formed elements.
5. Describe the process of hemopoesis.

The Lymphatic System

1. Define the purpose of the lymphatic system.
2. Describe the characteristics of lymph.
3. Describe the movement of lymph in the body.
4. List the functions of the spleen and thymus.
5. Describe the role of the lymphatic system in homeostasis.
6. Describe the function of the thymus in the immune system.
7. Define immunity and list the types of immune responses in the body.
8. Describe cellular immune response.
9. Describe humoral immune response.
10. Describe the relationship of the lymphatic system to the cardiovascular system.

The Respiratory System

1. Describe the trachea and the bronchial tree.
2. Describe the structure of the respiratory tubes and the alveoli.
3. Define the major contributions of the respiratory system to homeostasis.
4. Describe the structure of each lung.
5. List the events that occur in a typical respiratory cycle.
6. Describe how the respiration rate is controlled.
7. List several factors that affect the respiratory rate.
8. Describe in detail the process of alveoli gas exchange.
9. Describe the exchange of gasses in the respiratory system.