**Study Checklist for Biology Test 9: Anatomy and Physiology – Standard 3, Objectives 1-2**

* Define “structure” and “function”. How are they related?
* What organs, structures and tissues belong in the circulatory (cardiovascular) system? Label and describe their structure and function.
* What organs, structures and tissues belong in the respiratory (pulmonary) system? Label and describe their structure and function.
* What organs, structures and tissues belong in the integumentary system? Label and describe their structure and function.
* What organs, structures and tissues are related to the ovaries in animals? Label and describe their structure and function.
* What organs, structures and tissues belong in plants (leaf, stem, root, flower)? Label and describe their structure and function.
* Diagram and describe the pathway of air through the lungs and into the blood stream.
* Diagram and describe the blood pathway in the heart.
* Define “anatomy”, “physiology”, “structure” and “function.”
* How are organisms ordered?
* Define “homeostasis.”
* Define “vascular.”
* Which structures in plants have the same function as similar structures in animals?
* What energy reaction takes place in all plant and animal cells? How does this reaction receive input and get rid of waste? Which organ systems are involved?
* How do the muscular and respiratory systems work together to maintain homeostasis?
* How do the circulatory and respiratory systems work together to maintain homeostasis?
* How do the integumentary and excretory systems work together to maintain homeostasis?
* Review the organs at [***http://www.bbc.co.uk/science/humanbody***](http://www.bbc.co.uk/science/humanbody). Be able to identify each one.
* How is the corpus luteum formed?
* What happens to the corpus luteum if fertilization takes place? What happens if fertilization does not take place?
* What hormone is produced by the follicles? What is the purpose of that hormone?
* What hormone is produced by the corpus luteum? What is the purpose of that hormone?
* Define “ovulation.”
* What is the structure and function of the nervous system and how does it interact with other organ systems to maintain homeostasis?
* What are arteries, veins and capillaries?
* What is the path of blood from the heart, to the body, and back again?
* Know the number and type of chambers in the hearts of the following: mammals, birds, reptiles, amphibians, fish.
* What types of circulatory and respiratory organs are in the above animals? How do they function with each other in order to maintain homeostasis?
* Know the advantages of a four-chambered heart. Why is this type of heart needed for certain animals?
* Know the structures and the functions of the digestive system. How does it interact with other organ systems to maintain homeostasis?
* What are the unique structures of a bird’s and ruminant’s digestive systems? Why do these animals need these structures?
* Know the structures and functions of the nervous system. How does it interact with other organ systems to maintain homeostasis?
* Know the structures and functions of the skeletal system. How does it interact with other organ systems to maintain homeostasis?
* Know the structures and functions of the muscular system. How does it interact with other organ systems to maintain homeostasis?
* What are the three types of muscle? How do they differ from each other?
* What is homeostasis? How do various organ systems coordinate to maintain homeostasis?
* If given a diagram or scenario, be able to recognize the organs and organ systems involved in maintaining homeostasis.
* Know the difference between the endocrine and exocrine system. Recognize the organs involved in these systems and their functions.
* Know the unique properties of reproduction in fruit trees and ferns.