

1. What is the scientific method? Please describe that in detail. (10%)
2. What kind of tissue or system can you find of following cells? Please also describe their functions? (16%).
 - a. Leydig cell.
 - b. Glial cell.
 - c. Osteocyte.
 - d. Rod cell.
3. What adaptations of the bird skeleton promote flight? (6%)
4. What are two ways that mammals can generate metabolic heat? (6%)
5. What adaptation of the kidney allows mammals to excrete urine that is hypertonic to the blood? (10%)
6. What are the differences between human fetal circulation and adult circulation? (10%)
7. What differences would you expect between the communication system of animals that are active at night versus those that are active in the daytime? (10%)
8. What are the functions of connective tissue in vertebrate? (6%)
9. Please draw a figure to illustrate human male external and internal reproductive organs. Also, describe their functions. (10%)
10. Please briefly describe following terms. (16%)
 - a. Synapse
 - b. Membrane Receptor
 - c. Feedback Inhibition
 - d. Imprinting