RAVEN CHAPTER 47 GUIDED NOTES: ENDOCRINE SYSTEM

1. What is a hormone?

2. Explain the similarities and differences between neurotransmitters and hormones.
   a. similarities
   b. differences

3. Hormones are carried throughout the body to every cell via the circulatory system. Explain how only specific target cells respond to the hormone when many others do not.

4. What distinguishes paracrine regulation from endocrine.

5. What is a pheromone?

6. Distinguish between endocrine glands and exocrine glands. Give examples of each.
7. List and briefly characterize the 4 classes of hormones.
   a. ________________________________________________________________
   b. ________________________________________________________________
   c. ________________________________________________________________
   d. ________________________________________________________________

8. Describe the mechanism by which steroid hormones regulate their target cells.
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   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

9. Describe the general mechanism by which protein or hydrophilic hormones regulate their target cells.
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   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________

10. Make notes about the action of epinephrine on a liver cell as an example of the action of a protein hormone
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   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
   ________________________________________________________________
11. Where is the pituitary gland located? ______________________________________

12. Describe the differences between posterior and anterior pituitary with regards to structure, embryonic origin, and the hormones each produces.
   a. posterior ____________________________________________________________
     ____________________________________________________________
     ____________________________________________________________
   b. anterior ____________________________________________________________
     ____________________________________________________________
     ____________________________________________________________

13. Make notes about the regulation of the anterior pituitary by the hypothalamus.
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15. Explain the mechanism of positive feedback. Give an example.
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16. Diagram the regulation of blood calcium levels.

17. Diagram the regulation of blood glucose levels.

18. Diagram the regulation of blood osmotic levels by ADH.