The Thyroid Gland

1. Major role (big picture) ____________________________________________

_____________________________________________________________________

2. Location __________________________________________________________

3. Hormones secreted ________________________________________________

4. Mineral required by this gland to produce hormones _________________

5. Generate the pathway of activation by placing the steps in the correct order. Use arrows to indicate the negative feedback loops.
   
   a. Thyroid gland increased, hormone secretion
   b. Anterior pituitary gland, increased TSH secretion
   c. Target cells for hormone
   d. Neural inputs
   e. Increased plasma TSH concentration
   f. Increased plasma hormone concentration
   g. Hypothalamus, increased TRH secretion

6. Name one target cell for TH __________________________________________

7. Name a diseases associated with this gland __________________________
The Adrenal Gland

8. Major role (big picture) ___________________________________________________________ 
   _____________________________________________________________________________

9. Location ______________________________________________________________________

    _____________________________________________________________________________
    _____________________________________________________________________________

11. Generate the pathway of activation by placing the steps in the correct order. Use arrows to indicate the negative feedback loops.
12. 
   a. Neural input induced by Stress or non stress situations
   b. Increased plasma ACTH concentration
   c. Anterior pituitary, increased ATCH secretion
   d. Target cells for cortisol hormone
   e. Hypothalamus, increased CRH secretion
   f. Adrenal gland, increased cortisol secretion
   g. Increased plasma cortisol concentration

13. Name one target cell for the pathway listed in 12. ________________________________

14. What effect does cortisol have on the target cell named in 13. 
    _____________________________________________________________________________
    _____________________________________________________________________________

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15. Generate the pathway of activation by placing the steps in the correct order.

   a. Increased plasma epinephrine concentration  
   b. Adrenal gland stimulation by sympathetic division of the nervous system  
   c. Adrenal gland, increased secretion of epinephrine  
   d. Target cells for epinephrine

16. Name one target cell for the pathway listed in 15. ____________________________________________

17. What effect does epinephrine have on the target cell named in 16.

   ______________________________________________________________________________________
   ______________________________________________________________________________________

18. This response is termed the ________________________________________________________________.

19. Name a disease associated with this gland ________________________________________________
The Pancreas

20. Major role (big picture) ______________________________________________________
____________________________________________________

21. Location _________________________________________________________________

22. Hormones secreted, include name of specific cell that hormone is secreted from.

____________________________________________________________________________
_________________________________________                                
_____________________________________

23. Generate the pathway of activation by placing the steps in the correct order. Using arrows, indicate the negative feedback loops.

   a. Increased plasma insulin concentration
   b. Increased blood glucose levels
   c. Pancreas, increased insulin secretion
   d. Restoration of plasma glucose to normal
   e. Target cells for insulin

24. Name one target cell for the pathway listed in 23 ________________________________

25. What effect does insulin have on the target cell named in 24.

____________________________________________________________________________
____________________________________________________________________________
26. Generate the pathway of activation by placing the steps in the correct order. Using arrows, indicate the negative feedback loops.
   a. Decreased Blood glucose
   b. Target cell of glucagon
   c. Increased plasma glucose
   d. Increased plasma glucagon
   e. Pancreas, increased glucagon secretion

27. Name one target cell for the pathway listed in 26_____________________________________

28. What effect does glucagon have on the target cell named in 27.

______________________________________________________________________________
______________________________________________________________________________

29. Name a diseases associated with this gland _____________________________