**Test 3 Study Guide**

1. What are the major differences / similarities between the nervous and endocrine system? (from lecture)
2. What is the difference in an endocrine and exocrine gland? Name two of each. Which has a duct?
3. Name all of the endocrine glands and identify where they are located in the body.
4. What are the two major classifications of hormones? How do they function differently?
5. What three glands regulate thyroid hormone? What hormones are involved?
6. What are the main symptoms of hypo and hyperthyroidism?
7. Describe why the pituitary is considered the master gland?
8. What is the negative feedback loop for if glucose becomes too low/ High? Which glands and hormones are involved.
9. What is the difference in how a neuron sends a message to a cell versus an endocrine gland?
10. What disease did Lincoln have? Why did the tumor cause visual changes?
11. What does 20/40 vision mean?
12. You have trouble seeing far away objects but can read a book with no problem. Describe which eye condition you have and what lens could fix it.
13. Sketch what is happening in hyperopia and myopia and the correction for each.
14. Label and describe the main functions of the important parts of the eye?
15. What is the path of light in an eye?
16. Define: Refract / blind spot/ cones/ rods/ Ciliary muscle
17. What are the symptoms and cause of glaucoma, macular degeneration, and cataracts.
18. What is the difference between an optician / ophthalmologist/ optometrist
19. What is the negative feedback loop for if glucose becomes too low/ High? Which glands and hormones are involved.
20. Define: Substrate / enzyme/ reactants/ active site/ products/ enzyme substrate complex.
21. Describe the difference between the two major models of enzyme function.
22. What is a conenzyme and how does it impact an enzyme?
23. What is a noncompetitive and competitive inhibitor?
24. What is the pathway of the gastrointestinal tract including the 3 parts of the small and large intestine?
25. What are the three accessory organs of the digestive system and the function of each?
26. Define: rugae, microvilla, haustra, chemical digestion, mechanical digestion, bolus, chyme, digestion, absorption.
27. Identify digestive organs on a picture and the main function of each.
28. What variables can impact enzyme function? What does denature mean and how does it correlate to enzymes?
29. Name the major enzyme for each type of food. (carbs / lipid/ protein) and where they break down food.
30. What is BMI and what are normal levels? How can it be an inaccurate measurement of fitness? What two things are used to calculate it?
31. Calculate TDEE and calories / pounds lost per month.