Study Guide Test #3

1. Use the organ systems in chapter 20 to fill in the blanks:
   a. The __________ system is involved in making hormones or hormone regulation and includes the pituitary, thyroid, and adrenal glands.
   b. The __________ system is involved in communication between body parts (hint: like if I poke myself).
   c. The ___________ system is involved in immunity and fluid balance.

2. List the level of organization from the smallest to the largest by size for each of the following:
   a. Cells
   b. Organs
   c. Organisms
   d. Organ systems
   e. Tissues

3. Match the parts of a negative feedback loop in temperature homeostasis.
   a. effector
   b. response
   c. control center
   d. stimulus
   i. heat
   ii. temperature
   iii. mechanism producing heat
   iv. brain

4. Name the digestive system part and/or its correct function:
   a. absorbs nutrients:
   b. pharynx:
   c. food storage:
   d. food ingestion:
   e. large intestine:

5. Carbohydrates, proteins, lipids, and fats are all (macronutrients / micronutrients) while vitamins and minerals are both (macronutrients / micronutrients).

6. What is BMI and what is its formula?

7. You are at Dr. Tan’s house, enjoying dinner and discussing your plans to take over the world. (Bwahaha!) You take a bite of food, then suddenly, your epiglottis closes off your trachea! What has just happened? Will you be able to finish divulging your secret plot???
8. List the parts, in order, of the digestive system through which food passes.

9. What is the function of the:
   a. gall bladder?
   b. pancreas?
   c. adrenal glands?

10. List the parts, in order, of the path that air takes going into your body.

11. Match the following (hint: terms used more than once, more than one answer can be correct)
   i. leak-proof bag surrounding the lungs
   ii. breathing is
   iii. binds to hemoglobin
   iv. molecule released from lungs when breathing

   a) carbon monoxide  b) involuntary  c) voluntary d) carbon dioxide
e) oxygen f) pleural membrane g) glucose

12. Label as specific immunity or nonspecific immunity.
   a. the oil produced from glands that kills bacteria on your skin
   b. a fever caused by influenza
   c. a vaccination for a disease
   d. an inflammatory response
   e. antibodies forming against a virus

FREEBEE: Know the organ systems involved when you take a deep breath… Excretory organ system includes the urinary system. Is it used in breathing?

13. Match the statement with the best answer below.
   a. a cell that can produce antibodies
   b. a chemical signal responsible in starting the inflammatory response.
   c. function like a memory B cell.
   d. with repeated exposure to this comes an increase in the immune response

   1. Memory T cell
   2. T cell
   3. Histamine
   4. Antigen
   5. B cell
14. It has been difficult to create a vaccine against HIV because of its high mutation rate. With the help of Dr. Tan’s Bio 11A class, however, you have been able to create an indestructible white blood cell that HIV cannot attack. What kind of white blood cell does HIV normally attack, from which your super cell is made?

15. I have an overactive immune system causing me to sneeze constantly around dog saliva. My friend Joe also has an overactive immune system, and may suffer from lupus. What disorders may we each suffer from?

16. Why is it beneficial to get a fever after you become infected by a virus?

17. What events occur during a male erection? What about during ejaculation?

18. Your father and mother decide that after having their last child they can’t handle another one. Your father decides it would be better if he has his Vas deferens cut because it might be less permanent than your mom’s operation. What is the name of the surgical procedure that your dad will have done? What procedure will your mom not have done?

19. Match the following:
   a. hormone that increases uterine contractions during childbirth.
   b. blocks progesterone receptors on uterus lining
   c. also called the oviduct, the part of a woman’s body where fertilization usually occurs.
   d. blocks embryo from entering uterus
   e. more than one sperm enters an egg (it could happen)
   f. contained within the midpiece of a sperm
   g. in the head of a sperm, contains enzymes that help penetrate into an egg

   1. Mitochondria   4. IUD
   2. Polyspermy   5. Morning-after pill
   3. Acrosome   6. Oxytocin
   7. Uterine tube (fallopian tube)
20. Draw or write out the path sperm takes in the male reproductive system.

21. Unlike Rheumatoid arthritis, which is caused by an overactive immune system, SCID is a disease that cripples the immune system, rendering it practically inactive. What is the name of this disease?

22. Read a little about acute HIV. Know what it is and what stage it falls under for HIV infection.

Any questions/comments, email me (Patrick) at cabrillobio11a@gmail.com or Yves at yvtan@cabrillo.edu