Worksheet: Spring Final Exam Review

B I O L O G Y

Directions: Define the following terms using your notes and textbook

PART 1: ECOLOGY
1. Define the following terms:
   
a. Biosphere-

   b. Biome-

   c. Population-

   d. Autotroph (producer)-

   e. Heterotroph (consumer)-

   f. trophic level-

   g. weather-

   h. climate-

   i. symbiosis-

   j. predation-

   k. competitive exclusion principle-

   l. primary succession-

   m. secondary succession-
2. What are the four factors that effect a population size? What are their effects?

3. Diagram a simple food chain and label each trophic level.

4. What is the difference between logistic growth and exponential growth?

5. What are the levels of organization in ecology?

PART 2: EVOLUTION
6. Define the following terms:
   a. artificial selection-
   b. natural selection-
   c. vestigial structures-
d. homologous structures-
e. analogous structures-
f. mutation-
g. endosymbiosis theory-
h. coevolution-
i. convergent evolution-
j. divergent evolution-
k. punctuated evolution-
l. genetic drift-
m. temporal isolation-
n. geographic isolation-
o. founder effect-
p. gene pool-

7. Natural selection acts directly on ________________________.

8. What are the two main source for genetic variation?

9. What is the Hardy-Weinberg equilibrium? What are the condition that must be met in order to maintain equilibrium?
10. What did Miller and Urey’s experiment attempt to demonstrate?

11. What type of rock do most fossils form in?

12. What proportion of all species that have ever lived has become extinct?

PART 3: HUMAN PHYSIOLOGY

13. Define the following terms:
   a. homeostasis-
   b. neurotransmitters-
   c. action potential-
   d. cartilage-
   e. ligaments-
   f. tendons-
   g. tissue-
   h. hypertension-
   i. feedback system-
   j. fertilization-
   k. zygote-
   l. puberty-
14. What is the main source of energy for your body? (what organic compound)

15. How many bones are there in an adult human skeleton?

16. What are the three types of muscles in the human body and where are they found?

17. What is the top layer of the epidermis made of?

18. Label the diagram below showing the following structures: cell body, axon, dendrite, nucleus

   A.

   B.

   C.

   D.

   E.

19. Where does the process of chemical digestion begin?

20. What organ helps to regulate blood pressure?

21. What are the three types of blood vessels? Describe each

22. Which one of your digestive organs is responsible for extracting excess water from digested food?

23. What is the body's most important non-specific defense?

24. Which body system collects the fluid that is lost by the blood and returns it to the circulatory system?
25. What two layers make up your skin?

26. What is the smallest structural and functional unit of the nervous system?

27. How many organ systems make up the human body?

28. What is the function of actin and myosin?

29. Where do the raw materials that the body needs for growth and repair come from?

30. What enzyme found in saliva breaks chemical bonds between the sugar monomers in starches?

31. The endocrine system is made up of ____________________.