**Biology EOC Review: Pages 4 & 5: Evolution, Classification, Plant systems, and Animal systems**

1. What are three sources of evidence for common ancestry?
2. What is an example of anatomical homology?
3. What is an example of developmental homology?
4. What is natural selection?
5. Does natural selection cause changes in individuals, populations, or both? Explain.
6. Read the example for natural selection. Draw a cartoon depicting the scenario in the example.
7. Give an example of how reproductive success plays a role in natural selection.
8. How do scientists believe that the complexity of molecules, cells, and organisms has changed over time?
9. When fossils are found in rock layers, which are considered the oldest?
10. What is genetic drift, and what does it do to genetic variation?
11. What is gene flow and what does it do to genetic variation?
12. Why do sexually reproducing organisms have increased genetic variation?
13. What are the three domains used to classify organisms?
14. Identify the kingdom that each of the following organisms are in:
    1. Mushroom e. snail i. bacteria living in harsh conditions
    2. Amoeba f. staphylococcus j. euglena
    3. Algae g. corn k. fish
    4. Mold h. *E. coli* l. yeast
15. What is the difference between autotrophs and heterotrophs?
16. What is true of all members of domain bacteria? What kingdom is this?
17. What is true of all protists?
18. List all of the kingdoms that are made of eukaryotic cells.
19. Using the phylogenetic tree on the review sheet, which of the following species are the most closely related? B&C, A&K, D&E, or K&L
20. If two species are in the same class, will they also be in the same order? Why/not?
21. Are viruses made of cells? Yes/no
22. Which virus cycle kills cell? Lytic/lysogenic
23. List TWO viral diseases.
24. What are the reactants of photosynthesis?
25. What gas is a product of photosynthesis?
26. What is the chemical equation for photosynthesis?
27. What is the function of plant roots?
28. What does a plant’s vascular system do?
29. Which is the male reproductive structure of a flower?
30. Which is the female reproductive structure of a flower?
31. Phototropism is the process of plants moving towards the sun. What is a specific example of phototropism?
32. Write out the 8 levels of organization from SMALLEST to largest.
33. What is the function of the endocrine system?
34. What is the function of the immune system?
35. Read each of the examples on page 5 (A, B, C, D) and answer each question.
36. Look at the diagrams in the last panel on page 5.
    1. What happens to insulin levels when there is a high glucose?
    2. What happens to calcium (Ca+) in the presence of active vitamin D?
    3. What signal stimulates calcium reabsorption in kidneys?
    4. Explain how homeostasis is maintained for blood calcium levels.