Name _____ Date _____ Period _____

4TH MARKING PERIOD LARGE SEMI-CUMULATIVE QUIZ
STUDY GUIDE

Biology & Honors Biology
Mr. Zunick

SHORT ANSWER (ANSWER QUESTIONS 1-3 AND ANY OTHER 7 QUESTIONS):

1. List the 13 levels of organization in order. Provide examples and definitions of each level.

2. Be familiar with at least six examples of STRUCTURE-FUNCTION RELATIONSHIP and/or LOCK AND KEY FIT.

3. Be familiar with at least six examples of SURFACE AREA.

4. Be able to solve basic (monohybrid) genetics problems and draw pedigrees.

5. Be able to solve sex-linked and dihybrid genetics problems. Be able to solve genetics problems using probability in addition to Punnett Squares.

6. Know how to manipulate DNA, mRNA, tRNA, and amino acids. Know how to manipulate a DNA or mRNA strand with point or frame-shift mutations.

7. Be able to draw and fully explain the following: crossing-over, all steps in the lytic cycle, and all of the stages of mitosis.

8. Be able to draw and fully explain both DNA replication and translation.

9. Know the Hardy-Weinberg formulas. Be able to use them to solve problems.

10. List the levels of taxonomy in order. List the 6 kingdoms and know all of the major facts of each one. Know how each of the kingdoms evolved. Be able to explain how the major characteristics are related to evolution of the kingdoms.

11. Know a lot of the ecological terms, such as: exponential/logistic growth, parasitism/mutualism/commensalism, R-selected/K-selected, abiotic/biotic factors, and fundamental/realized niche.

12. Be familiar with various aspects of ecology. I will ask you some thought questions regarding changes to the environment based on things we have discussed.

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