

Exam one

(Feb. 5)

I. Multiple-Choice Questions (xx point each, total xx points)

- 1) The term "ecology" is defined as the study of the
 - A) environment.
 - B) relationships between organisms.
 - C) relationships between organisms and their environment.
 - D) impact of humans on the environment.

Answer: (C)

II. True/False Questions

- 1) An ecosystem includes both living and non-living components.

Answer: TRUE

III. Fill-in the blank questions (xx point each, total xx points)

- 1) The scientific study of the relationship between organisms and their environment is called ___Ecology_____.

IV. Essay Questions (xx points each, total xx points)

- 1) What's natural selection? What are the two main conditions for evolution by natural selection, according to Darwin?
(5 points)

Answer:

Natural selection is the differential success in survival and reproduction of individuals resulted from their interactions with their environments. In one word, natural selection selects the individuals that fit to their environments and eliminates inferior individuals.
(2 points)

There are two conditions for evolution to occur through natural selection. One is that in the population, there is a heritable variation. As a result, the traits selected can be transferred to next generation. (1.5 points) Another one is that in every generation, some

organisms are more successful at surviving and reproducing than others. So these individuals are selected while others may be eliminated. (1.5points)