AP: CHAPTER 24: THE ORIGIN OF SPECIES

1. Define the term species.

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__________________________________________________________

2. How do the patterns of speciation differ?

a. anagenesis ________________________________

b. cladogenesis ________________________________

3. What is thought to be essential for the formation of distinct species rather than a continuum from one form of life to another?

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4. Define and give an example for each of the following barriers that cause isolation.

a. prezygotic Barriers ________________________________

b. habitat Isolation ________________________________

c. behavioral Isolation ________________________________

d. temporal Isolation ________________________________
5. Define the Modes of Speciation

a. allopatric speciation _________________________________________________

b. sympatric speciation _______________________________________________

6. How does the antelope squirrel demonstrate allopatric speciation?

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7. What does the concept of “ring species” demonstrate? Give an example.

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8. How do island chains encourage adaptive radiation?


9. What are the two intrinsic factors that result in sympatric speciation?


10. How can polyploidy lead to speciation?


11. Why are allopolyploid hybrids usually sterile?


12. What did Hugo de Vries discover in the evening primrose?


13. What is thought to be the two factors demonstrating sympatric speciation in the cichlids of Lake Victoria, in East Africa?


15. How does microevolution differ from macroevolution?

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16. Identify a couple of factors that could lead to the pattern of evolution we see as divergence?

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17. What does the Mollusk eye demonstrate?

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18. What does the evolution of the horse demonstrate?

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19. Define each of the following evolutionary trends:
   a. convergent evolution _______________________________________________________

      _________________________________________________________________________

   b. analogous traits __________________________________________________________

      _________________________________________________________________________

   c. parallel evolution _________________________________________________________

      _________________________________________________________________________

   d. co-evolution______________________________________________________________

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