

Chapter 22 – Part 1: Speciation (p. 418-422)

- 1) What is a **biological species**? Why are horses and donkeys not considered the same species even though they can produce offspring (mules)?

- 2) What are **reproductive isolating mechanisms**?

- 3) A gene pool of a species can be isolated or separated through various reproductive barriers.
 - a. Explain the difference between prezygotic and postzygotic barriers in general.

 - b. Discuss the following prezygotic barriers & provide an example for each:
 - i. Habitat Isolation

 - ii. Temporal Isolation

 - iii. Behavioral/Sexual Isolation

 - iv. Mechanical Isolation

 - v. Gametic Isolation

 - c. Discuss the following postzygotic barriers & provide an example for each:
 - i. Hybrid inviability (Reduced Hybrid Viability)

 - ii. Hybrid sterility (Reduced Hybrid Fertility)

 - iii. Hybrid breakdown