

3.E Formative FRQ's

1.

At the sound of shattering glass, people quickly turn their heads. **Discuss** how the human nervous system functions to produce this type of response to an external stimulus.

2.

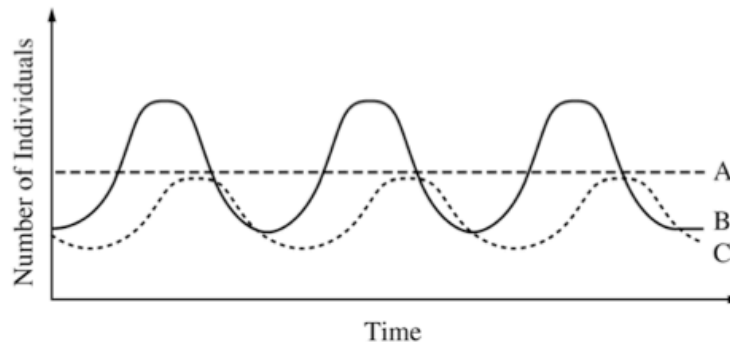
Survival of organisms depends on adaptive behavior and species interactions.

(a) Behaviors of organisms may be influenced by environmental factors. Select two of the following types of behavior. For each type, explain

- (i) how the environment affects the behavior, and
- (ii) why this behavior increases the survivorship of individuals of a species.

- Taxis/Kinesis
- Migration
- Courtship

(b) Interactions among populations may have an effect on densities of the species that interact. Predation represents an important interaction among populations. The curves below depict the population densities of three species: a small herbivore, a larger herbivore, and a carnivore.



Identify which curve represents which of the species listed, and **justify** your answer by describing the changes in the population densities of these three species over time.