**APES-** *Free Response Question #1*  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Background Information:***  ***For thousands of years, clams have been dug up along the beaches of California for food, first by Native Americans, and these days often by tourists. Today, the clam population is at an alltime low, and many scientists agree that several species of clams will inevitably become extinct in California. Dr. Kim, a marine biologist, believes that DDT (a pesticide) dumped into the ocean during the 1950’s and 60’s could be another factor in the dramatic decrease in the clam population.***

1. *Define the* ***“Tragedy of the Commons”*** *and identify the person who coined the term.*
2. *Write an argument* to explain ***why*** the decline in the clam population could be considered an example of a ***tragedy of the commons***.
3. Identify and describe ***two strategies*** that could be employed to prevent any decline in the clam population due to a tragedy of the commons.

D)***Design a controlled experiment*** to support or refute the claim by Dr. Kim that DDT is playing a role in the clam’s demise. *Include a detailed description of the experiment* that includes the hypothesis being tested, a description of the data being collected, and identification of the dependent and independent variables in the experiment.

