

POSSIBLE FREE-FORMAT QUESTIONS

The first exam will include a choice among several free-format questions.

The following are examples of the kinds of free-format questions that may be included.

AT LEAST TWO OF THE FOLLOWING QUESTIONS will appear on the first exam:

- a. Both Empedocles and Lucretius imagined bodies formed by random combinations of parts. How did they account for the formation of such combinations, and what outcomes did they think followed?
- b. Explain what the peppered moths (*Biston betularia*) of England demonstrate and how they do so.
- c. Explain how Lyell used the Temple of Jupiter Serapis to build his argument about geological history.
- d. With the aid of a diagram, explain the process of geographic speciation under the modern evolutionary synthesis.