## Biology/Geology 350 Invertebrate Paleontology: The History of Life on Earth Exam Number 2

## QUESTION TWO ARCHEAN EVOLUTION AND ECOSYSTEMS

## **OUESTION TWO:**

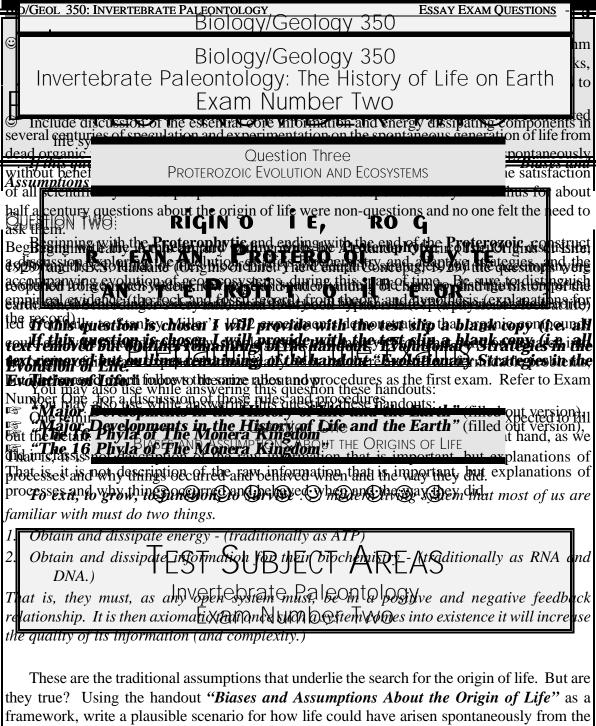
Beginning with the Archean and ending with the Proterophytic, construct a discussion exploring the evolution of life's biochemistry and adaptive strategies, and the accompanying evolution of geo-ecosystems, during this span of time. Be sure to distinguish empirical evidence (the rock and fossil record) from theory and hypothesis (explanations for the record).

If this question is chosen I will provide with the test slip a blank copy (i.e. all text removed but outlines remaining) of the handout "Evolutionary Strategies in the Evolution of Life."

You may also use while answering this question these handouts:

- "Major Developments in the History of Life and the Earth" (filled out version),
- "The 16 Phyla of The Monera Kingdom"

That is, it is not description of the raw information that is important, but explanations of processes and why things occurred and behaved when and the way they did.



inorganic stuff of the universe.

In your discussion you should address each bias and assumption in the list, but do not have to discuss them in any particular order. Plus, you may combined and discussed more than one together, just make it clear that you are doing so.

Be sure to approach the problem from the point of view of evolving, open dissipative systems, and the necessary stratified stabilities along the way.