

## **Review Sheet for Lecture #06: Fossils and Fossilization**

**Terms and Definitions:** body fossils, chemical fossils, trace fossils, coprolites, pristine, phytane, steranes, coal, natural gas, petroleum, taphonomy, necrolysis, biostratinomy, diagenesis, fragmentation, disarticulation, abrasion, encrustation, bioerosion, anoxia, aerobic decay, anaerobic decay, hydroxylapatite, aragonite, calcite, soft-tissue, non-mineralized tissue, skeleton, refractory soft-tissue, volatile soft-tissue, original preservation, freezing, desiccation, pickling, external molds, casts, bioimmuration, pyritization, pyrite coating, carbonization

**Persons:** none

**Dates:** none

**Places:** none

**Organisms:** none

### **Review Questions:**

Explain and discuss the three major categories of taphonomy.

Modern experiments have shown little to no significant differences in the rate at which carcasses decay in oxygenated water versus anoxic waters. Why?

How does anoxia favor the preservation of complete fossil skeletons?

Explain the most important factors that influence whether a fresh carcass makes it into the fossil record.

What do paleontologists mean when they say the fossil record is biased? Discuss.

List the means by which evidence of non-mineralized tissue can be preserved in the fossil record – provide a real-world example of each.

Explain the process by which thin pyrite coats can preserve the shape, form, and surface details of soft-tissue remains?