BSC 1005: Life Science

Exam 4 Review

Fill this review out in detail as a study guide for the Exam. Use your class notes, power point slides and textbook to help you. This is a general guide and does not necessarily include every detail that could be covered on the exam. Be sure to review your notes in addition to this study guide when preparing for the exam!

**Chapter 10:**

* Biodiversity, total number of species on earth, number of unknown species
* **3** **domains**
* **Eukarya**: 4 kingdoms
* rDNA (rRNA) what it is used for
* **Prokaryote**
* **Bacteria** (what are they, are they all bad?), antibiotics, restriction enzymes
* **Archaea**: what are they, where are they found, useful product isolated from them
* **Endsymbiont Theory**
* **Protists**, examples
* **Animals**: common characteristics, examples, Cambrian Explosion
* Invertebrates vs vertebrates
* **Fungi**: what are they, examples, heterotrophic, useful product isolated from them
* **Plantae:** autotrophic, photosynthesis, vascular, flowering, pollinators, useful product isolated from them
* **Viruses:** what they are, why they are important, examples
* Reconstructing evolutionary History (vultures, sparrows, fossils, DNA)

**Conservation and Ecosystem:**

* **Endangered species act, biodiversity, extinction**
* **Mass extinction (how many), Sixth mass extinction (last 150 years)**
* Four general categories of severe threat to species loss
* Species area curve, habitat destruction, habitat fragmentation
* Introduced species (non-native, invasive)
* Types of pollution and their effect (poisons, toxins, nutrients, etc)
* Consequence of extinction
* **Mutualism**, bees
* Predators, birds and insects example
* Deliberately infected chicken eggs, **competitive exclusion**
* **Competition, mosquitoes and disease**
* **Keystone Species, wolves and impact**
* **Energy flow, nutrient cycling, soil communities**
* **Experience with nature: psychological effects**
* **Protecting Habitats (how)**

**Native Florida and Indian River Lagoon:**

* Find the PowerPoints for these topics on Angel and use them to answer this portion of the exam.