

Overall terms and concepts you should know:

1. Differences between prokaryotic and eukaryotic organisms.
2. Definition of the terms haploid and diploid.
3. Understand the differences in modes of nutrition. What does it mean when an organism is classified as an autotroph or heterotroph? What are the different kinds of autotrophs and heterotrophs? (photo/chemo)
4. Understand what the terms aerobe and anaerobe refer to.

Chapter 18: Classification, taxonomy, phylogeny (Intro lecture)

1. Definition of taxonomy and phylogeny.
2. Classification system (order and direction).
3. Definition of species.

Chapter 20: Viruses, bacteria and archaea

1. Characteristics of viruses.
2. Structure of viruses.
3. Differences between virus, viroid, virion.
4. Be able to explain what are some challenges when treating viral diseases.
5. Be able to describe steps for viral replication
6. Understand the differences between a lytic and lysogenic replication cycle.
7. Be able to describe the differences between archaea and bacteria.
8. Describe what an endospore is.
9. What are some characteristics that have allowed prokaryotes to be successful (evolutionarily)?

Chapter 21: Protists

1. General characteristics of protists
2. Differences between colonial and multicellular organisms
3. What are some ecological roles for protists?
4. What are the 7 main groups of protists and characteristics for each group? (Characteristics include special structures as well as reproduction)

Chapter 22: Plants

1. Describe how plants have evolved and the structures that allowed adaptation from water to land.

** This is intended to be used as a **guide** to help focus your review of lecture and reading materials and, as unlikely as it may appear, should not be viewed as an exclusive list of questions to be covered on the exam. **

BIO102

Ramos

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2. Classification of plants. What are the major groups and the characteristics of each group?
3. Life cycle of each major group of plants. Understand similarities and differences across plant groups.

Chapter 23: Fungi

1. General characteristics for fungi
2. What major ecological role do many of them play? What other ecological roles (eg. parasites etc.)
3. Know what hyphae are and what the mycelium is and what it does
4. Describe a lichen (its mutualistic association)
5. What are mycorrhizae?
6. What are the five main groups of fungi and what differentiates these groups?
7. What is the generalized life cycle of fungi?

Chapter 24: Animal: Invertebrates

1. General characteristics for invertebrates.
2. Classification system.
3. Embryonic development.
4. Major groups and their characteristics.

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