**CHAPTER 28 – PROTISTS**

1. Why are protists considered to be the most unique of all eukaryotes?

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1. What process is thought to be involved in the genesis of eukaryotes from prokaryotes?

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1. Define secondary endosymbiosis. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Why do systematists currently working on eukaryotic relationships consider kingdom protista and the five kingdom system to be obsolete? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Provide an example of both a symbiotic and photosynthetic protist. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Clade** | **Group** | **Sub-Group** | **Characteristics/Examples** |
| Excavata | Diplomonads |  |  |
| Parabasalids |  |  |
| Euglenozoans | Kinetoplastids |  |
| Euglenids |  |
| Chromalveolata | Alveolates | Dinoflagellates |  |
| Apicomplexans |  |
| Ciliates |  |
| Stamenophiles | Diatoms |  |
| Golden Algae |  |
| Brown Algae |  |
| Oomycetes |  |
| Rhizaria | Cholorarachiniophytes |  |  |
| Foraminoferans |  |  |
| Radiolarians |  |  |
| Archaeplastida | Red Algae |  |  |
| Green Algae | Chlorophytes |  |
| Charophytes |  |
| Land Plants |  |  |
| Unikonta | Amoebozoans | Slime Molds |  |
| Gymnamoebas |  |
| Entamoebas |  |
| Opisthokonts |  | Include nucleariids, choanoflagellates, fungi and animal subgroups. (To be discussed later). |