Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Fred and Theresa Holtzclaw

AP Biology

Chapter 25—The Origin and Diversification of Eukaryotes

**Overview**

The kingdom you learned as Protista is no longer recognized as an official taxon. Work in Protista

systematics has revealed that the kingdom is paraphyletic and in need of extensive reworking. The

kingdom formally known as Protista has been divided into many separate kingdoms. Biologists now

use the term Protista in a general, nontechnical way to refer to eukaryotes that are neither plants nor

animals nor fungi. As we move through this chapter, we will concentrate on the evolutionary events of

significance and the specific protists that are important.

1. Protists vary in structure and function more than any other group of organisms. However, here are some common traits:

a.All have membrane-bounded organelles, and so are \_\_\_\_\_\_\_\_\_\_\_\_.

b. Most are single-celled, or \_\_\_\_\_\_\_\_\_\_\_\_.

c.They get their food in several ways. Some contain chloroplasts and do photosynthesis, and so

are considered \_\_\_\_\_\_\_\_\_\_\_\_. Others ingest food particles and so are \_\_\_\_\_\_\_\_\_\_\_\_.

2. What three categories can protists be divided into? How do they obtain nutrition differently?

3. 8. This is a large chapter with a great deal of information about many different protists. To give you

an idea of some of them, here is a short list gleaned from your text. You may recognize many of

these protists:

a.Giardia intestinalis (causes “hiker’s diarrhea”; always treat your water!)

b. Trichomonas vaginalis (sexually transmitted infection)

c. Trypanosoma sp.(sleeping sickness and Chagas’ disease)

d. Euglena (remember seeing the tiny flagellated green cell with a red eyespot in Bio. I?)

e. Dinoflagellates (blooms cause “red tides”; many are bioluminescent)

f. Plasmodium (causative agent of malaria)

g. Ciliates (Paramecium and Stentor are examples; micro- and macronuclei)

h. Amoeba (move by pseudopodia)

i. Diatoms (unicellular with two-part, glass-like wall made of silica)

j. Golden algae

k. Brown algae (kelp)

l. Oomycetes (water molds and their relatives; includes causative agent of potato blight)

m. Red algae (multicellular; some found at great depths; sushi wraps)

n. Green algae (Clamydomonas, Ulva, Volvox; this group is the closest relative of land plants)

o. Slime molds