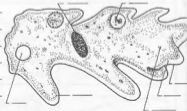


## NUTRITION IN PROTOZOANS

Name \_\_\_\_\_

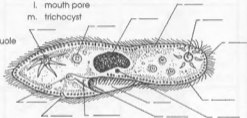
Label the following parts on the diagram below of an ameba. State the function/purpose of each part.

- food vacuole \_\_\_\_\_
- pseudopods \_\_\_\_\_
- nucleus \_\_\_\_\_
- contractile vacuole \_\_\_\_\_
- cell membrane \_\_\_\_\_
- ectoplasm \_\_\_\_\_
- endoplasm \_\_\_\_\_



Label the following parts on the diagram below of a paramecium.

- oral groove
- gullet
- anal pore
- forming food vacuole
- food vacuole
- anterior contractile vacuole
- cilia
- micronucleus
- macronucleus
- pellicle
- posterior contractile vacuole
- mouth pore
- trichocyst



Answer the questions below.

- Under what conditions does a paramecium discharge its trichocysts?  
\_\_\_\_\_
- How does a paramecium react if it encounters an obstacle?  
\_\_\_\_\_

## MATCHING—CLASSIFICATION AND PROTISTS

Name \_\_\_\_\_

Match the definition in Column I with the correct word in Column II (not all words will be used).

### Column I

- \_\_\_\_\_ 1. method of sexual reproduction in paramecia
- \_\_\_\_\_ 2. protozoan with short, hairlike structures used for movement
- \_\_\_\_\_ 3. fingerlike projections of cytoplasm
- \_\_\_\_\_ 4. protozoan that has a 3-stage life cycle
- \_\_\_\_\_ 5. largest category in a kingdom
- \_\_\_\_\_ 6. first word in a scientific name
- \_\_\_\_\_ 7. science of classifying living things
- \_\_\_\_\_ 8. smallest category in a kingdom
- \_\_\_\_\_ 9. division of a class
- \_\_\_\_\_ 10. method of reproduction in an amoeba

### Column II

- a. pseudopod
- b. genus
- c. conjugation
- d. slime mold
- e. paramecium
- f. order
- g. class
- h. fission
- i. species
- j. taxonomy
- k. phylum

Match the following functions to the correct organelle.

- |  |                        |
|--|------------------------|
| _____ 1. gives shape to the paramecium and euglena             | a. cilia               |
| _____ 2. controls sexual reproduction in the paramecium        | b. chloroplast         |
| _____ 3. used for excretion of waste products                  | c. micronucleus        |
| _____ 4. contains chlorophyll                                  | d. oral groove         |
| _____ 5. reacts to light                                       | e. contractile vacuole |
| _____ 6. used for movement by the euglena                      | f. pellicle            |
| _____ 7. controls metabolism of a paramecium                   | g. flagellum           |
| _____ 8. used for movement by a paramecium                     | h. cytostome           |
| _____ 9. The paramecium ingests its food through this opening. | i. eyespot             |
|  | j. pseudopod           |
|  | k. macronucleus        |

# SELF QUIZ—CLASSIFICATION AND PROTISTS

Name \_\_\_\_\_

Circle the letter of the correct answer.

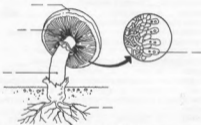
- Of the following groups, a \_\_\_\_ contains animals that are least alike.  
a. family    b. phylum    c. division    d. class
- Which of the following groupings contain the most closely related organisms?  
a. family    b. phylum    c. genus    d. kingdom
- Which of the following is a correctly written scientific name?  
a. *Panthera Leo*    b. *panthera leo*    c. *PANTHERA LEO*    d. *Panthera leo*
- The smallest category of a kingdom is a(n) \_\_\_\_\_.  
a. division    b. species    c. phylum    d. genus
- \_\_\_\_\_ is the science of classifying living things.  
a. Astronomy    b. Biology    c. Taxonomy    d. Zoology
- The cat and dog belong to the same order but different \_\_\_\_\_.  
a. kingdoms    b. classes    c. families    d. divisions
- Living things are usually classified into five \_\_\_\_\_.  
a. phyla    b. kingdoms    c. classes    d. divisions
- Which of the following is a *Felis domesticus*?  
a. horse    b. house cat    c. house finch    d. lion
- What language is used for scientific names?  
a. English    b. Swedish    c. German    d. Latin
- Organisms are classified into the group with which they share the most \_\_\_\_\_.  
a. food    b. territory    c. characteristics    d. time
- Why does each organism have a specific scientific name?  
a. for ease of study and communication    c. name contains important information  
b. classification is less involved    d. easier to alphabetize all organisms
- Protozoans and slime molds belong to a group of organisms known as \_\_\_\_\_.  
a. protists    b. fungi    c. lichens    d. parasites
- The fingerlike projections of cytoplasm used by some protozoans for movement and obtaining food are:  
a. hyphae    b. sporangia    c. pseudopods    d. oral grooves
- A protist that has chlorophyll and produce its own food is a(n) \_\_\_\_ protist.  
a. plantlike    b. sporozoan    c. animallike    d. saprophyte
- A protist covered with many, short hairlike structures used for movement is a \_\_\_\_\_.  
a. parasite    b. ciliate    c. flagellate    d. lichen
- Which of the following protists have shells made of silica?  
a. diatoms    b. ciliates    c. amoeba    d. paramecia
- The kingdom with one-celled organisms that are plantlike, animallike and funguslike is \_\_\_\_\_.  
a. amoeba    b. protozoa    c. protista    d. fungi
- The long, hairlike structures protists use for locomotion are \_\_\_\_\_.  
a. cilia    b. flagella    c. pseudopods    d. trichocysts
- One stage of a slime mold is:  
a. stage with a hard outer shell of chitin    c. a slimy mass like an amoeba  
b. free swimming ciliate stage    d. chloroplast stage
- Euglena* may obtain food by making it, but *Amoeba* obtains food \_\_\_\_\_.  
a. by fermentation    b. by surrounding it    c. along an oral groove    d. from a host

## THREE TYPES OF FUNGI

Name \_\_\_\_\_

Label the following parts on the diagram of a mushroom below.

- a. cap
- b. gills
- c. stipe
- d. basidia
- e. rhizoids



Label the following parts on the diagram of bread mold below.

- a. sporangia
- b. spores
- c. sporangiophore
- d. stolon
- e. rhizoid



Label the following parts on the diagram of a yeast cell below.

- a. bud
- b. cell wall
- c. nucleus
- d. vacuole
- e. cytoplasm



## SELF QUIZ—FUNGI

Name \_\_\_\_\_

Circle the letter of the correct answer.

- During the process of \_\_\_\_ energy is released.  
a. parasitism   b. fermentation   c. mutualism   d. reproduction
- \_\_\_\_ are saclike structures that produce many spores.  
a. Pseudopods   b. Gills   c. Sporangia   d. Hyphae
- Club fungi produce spores on a sac called a(n) \_\_\_\_.  
a. bud   b. basidium   c. ascus   d. stipe
- Bread mold produces masses of threadlike structures called \_\_\_\_.  
a. flagella   b. cilia   c. hyphae   d. pseudopods
- \_\_\_\_ are fungi that produce spores in special structures on the tips of hyphae.  
a. Yeasts   b. Lichens   c. Mushrooms   d. Sporangia fungi
- \_\_\_\_ is a type of sexual reproduction in which an outgrowth from the parent organism forms a new organism.  
a. Budding   b. Zygosporangium   c. Sporangium   d. Basidium
- Sac fungi are fungi that \_\_\_\_.  
a. look like masses   b. are one-celled   c. are helpful because they produce enzymes   d. produce spores inside an ascus
- Yeast cells may reproduce by forming spores or by \_\_\_\_.  
a. fermentation   b. budding   c. respiration   d. dehydration
- A sporangium fungus obtains food by \_\_\_\_.  
a. respiration   b. dehydration   c. absorption   d. mutualism
- Club fungi include puffballs, bracket fungi and \_\_\_\_.  
a. molds   b. yeasts   c. mushrooms   d. lichens
- A sporangium fungus reproduces by \_\_\_\_.  
a. budding and spores   b. spores and zygospores   c. anaerobic respiration   d. a micronucleus
- Unlike a plant, a fungus does not have \_\_\_\_.  
a. very many cells   b. chlorophyll   c. cell walls   d. buds
- Which one of the following helpful fungi is used to flavor cheese?  
a. mushrooms   b. saprophytic fungi   c. yeast   d. molds
- Each basidium will produce how many spores?  
a. thousands   b. hundreds   c. four   d. ten
- The basidia are found on what part of the mushroom?  
a. stipe   b. gills   c. cap   d. hyphae
- Fermentation produces what products?  
a. alcohol and carbon dioxide   b. air bubbles and sugar   c. alcohol and water   d. carbon dioxide and sugar
- Masses of hyphae are called \_\_\_\_.  
a. basidia   b. sporangia   c. mycelium   d. ascus
- Another name for anaerobic respiration in fungi is \_\_\_\_.  
a. budding   b. reproduction   c. breathing   d. fermentation
- A person who studies fungi is called a \_\_\_\_.  
a. fungicide   b. mycologist   c. zygosporangium   d. saprophyte
- The cell walls of fungi are made of \_\_\_\_.  
a. cellulose   b. chitin   c. silica   d. tissue

**Five Phyla of Fungi: Understanding the main ideas**

Each of the statements below describes a characteristic of one of the five phyla of fungi. Use your typed out lecture notes and or your textbook to obtain the information required to answer each of the questions below. In the blank before each statement complete the matching as required with the first letter of the correct phylum.

<u>Question</u>	<u>Answer</u>
_____ 1. Fungi in this phylum do not undergo sexual reproduction	O - Oomycota
_____ 2. Mushrooms are in this phylum	Z - Zygomycota
_____ 3. These fungi are thought to be closely related to plantlike protists	A - Ascomycota
_____ 4. This is the largest phylum in the Fungi kingdom.	B - Basidiomycota
_____ 5. Common molds that grow on cheese and bread are members of this phylum.	D - Deuteromycota
_____ 6. This is the only group of fungi that produce mobile spores.	
_____ 7. Rhizoids and Stolens characterize this phylum.	
_____ 8. Yeast are members of this phylum	
_____ 9. These fungi have what is probably the most elaborate life cycle of all fungi.	
_____ 10. Sexual reproduction involves the formation of an acus.	
_____ 11. The reproductive structure is called a basidium.	
_____ 12. <i>Penicillium</i> is a member of this phylum.	