

53

Name _____

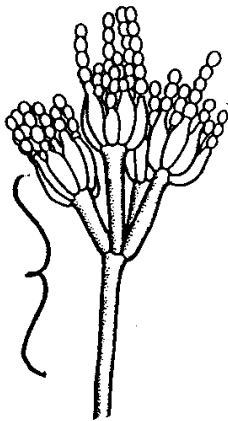
EXAM I
February 19, 1993
MIC 321

Direction: All explanations, definitions, and descriptions should be presented in good English. This means complete sentences should be used except when lists or fill-in-the-blanks are required. Spelling of mycological terms should be accurate. Slight misspellings may be overlooked, but major misspellings will result in wrong answers.

(1 point per blank; 43 pts total).

1. Identifications of structures, their essential basic function and their taxonomic significance. In the blanks provided identify with no more than one or two mycological terms each structure (or structure indicated by arrow(s)), then with a short phrase describe its function (e.g. cytokinesis; asexual reproduction, meiosporangium, etc.) and finally its relevance to phylogeny (classification) at the rank(s) requested.

a.

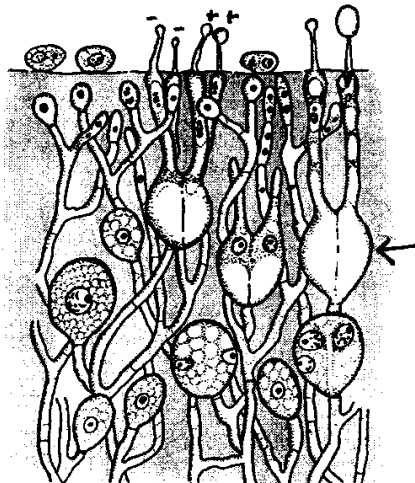


a. structure (as indicated by bracket)

b. function _____

c. phylum _____

b.



a. structure (as indicated by the arrow)

b. function _____

c. phylum _____

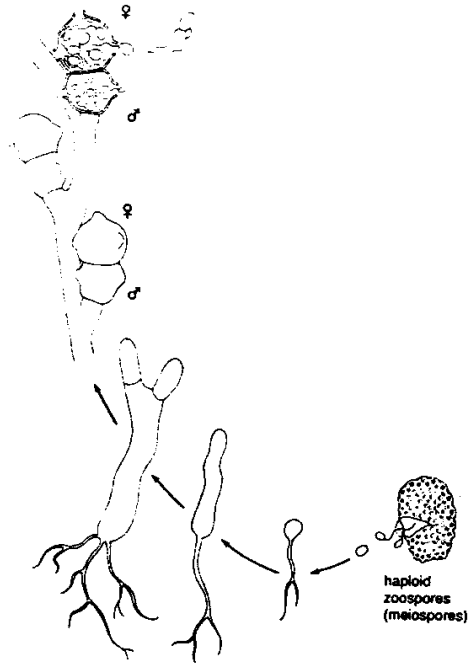
d. subphylum _____

e. class _____

f. order _____

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c.



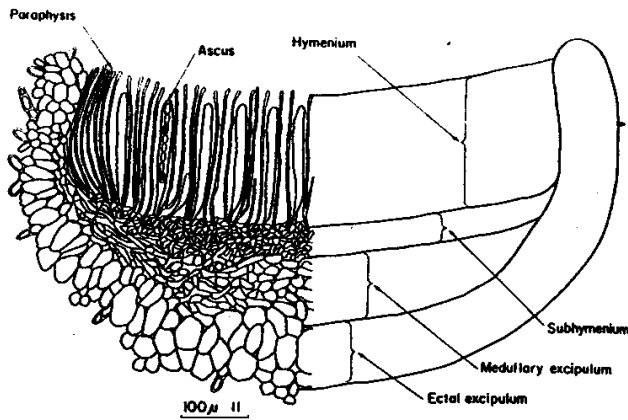
a. structure (as indicated by arrows)

b. function _____

c. subkingdom _____

d. phylum _____

d.



a. structure

b. function _____

c. subkingdom _____

d. class or form-class _____

e.



(a)



(b)



(c)

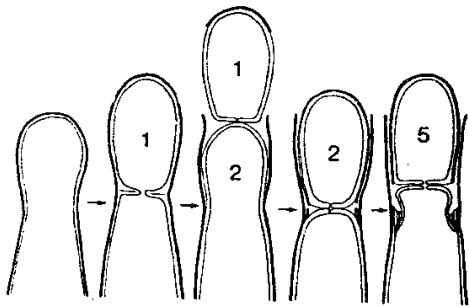
a. structure (as indicated by arrow)

b. function _____

c. phylum _____

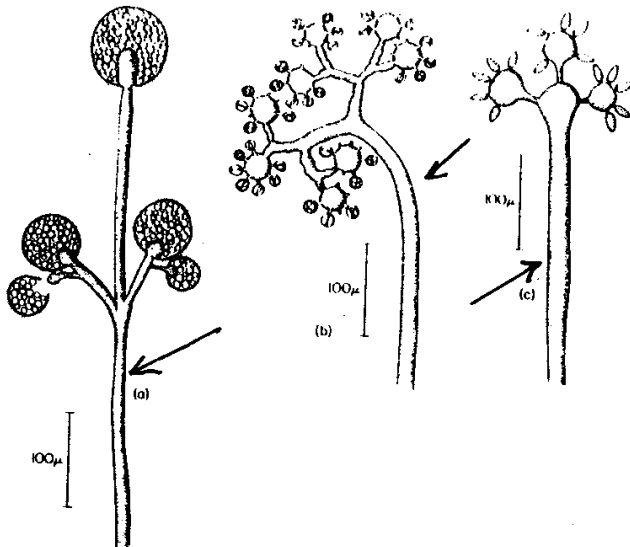
Name _____

f.



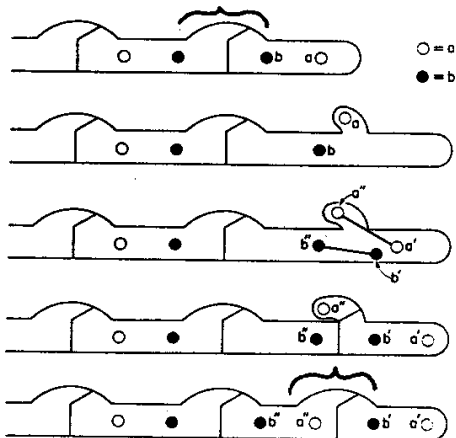
- structure (as indicated by horizontal arrows) _____
- function _____
- phylum _____
- class or form class _____

g.



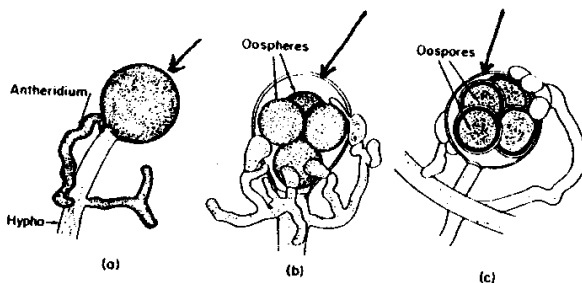
- structure (as indicated by arrows) _____
- function _____
- subkingdom _____
- phylum _____

h.



- structure (as indicated by brackets) _____
- function _____
- subkingdom _____
- phylum _____

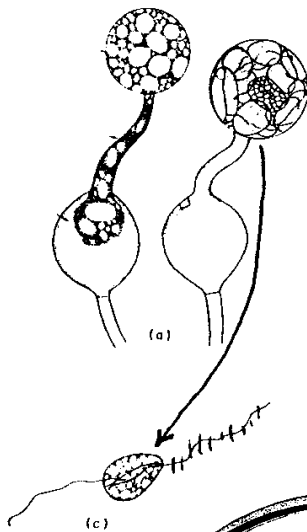
i.



- structures (as indicated by arrows) _____
- function _____
- kingdom _____
- phylum _____

Name _____

j.



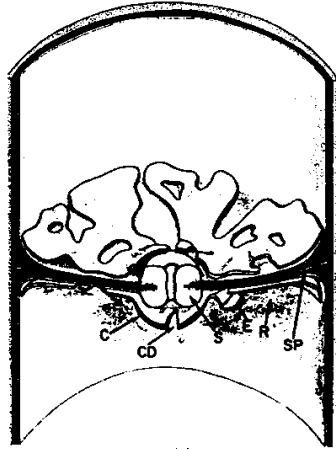
a. structure (as indicated by arrow) _____

b. function _____

c. kingdom _____

d. phylum _____

k.



a. structure _____

b. function _____

c. phylum _____

2. (15 pts) On the answer sheets provided, and in one or two well written paragraphs explain why R.H. Whittaker in his 1969 Science paper reasoned that at least some of the organisms known as fungi at the time were not plants and were deserving of inclusion in their own kingdom, the kingdom Fungi. (Make sure your answer to this question is not redundant with your answer to the next question).
3. (15 pts) On the answer sheets provided and again in a paragraph or two explain why most contemporary mycologists and evolutionary biologists, such as Lyne Margulis and Karlene Schwartz, consider most of the organisms previously classified as Phycomycetes to represent a heterogenous grouping of fungal-like protocistan phyla.
4. (15 pts) In certain Ascomycota the dikaryotic nuclear condition is perpetuated by a process that leads directly to ascus formation. Using a series of diagrams with labels explain how this process occurs starting with the exchange of mating type nuclei between a female ascogonium and a male atheridium of a euascomycetous fungal species.
5. (12 pts @ 2 pts each) Define each term without diagrams and with a single sentence or a well constructed phrase.

a. enterarthric conidium

b. eucarpic

c. polycentric

d. teleomorph

e. annelloconidium

f. sporangiola