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Be sure to refer to the images on the lab website when answering these questions.

Question 1

Below is an image of the Death Angel or Destroying Angel mushroom (*Amanita ocreata*). While it looks similar to some other edible wild mushrooms, it is quite deadly to eat.

a. Name the phylum where you would place this organism. (0.5 pt)

b. Upon what characteristic can you see here to base your decision? (0.5 pt)

c. What toxin does this mushroom contain and how does this toxin ultimately kill those who eat it? (1 pt)

Question 2

While the first antibiotic was made from the fungus *Penicillium*, some species of *Penicillium* have been found to produce cholesterol lowering compounds. Name 1 of the species of *Penicillium* (give the full scientific name –written properly) that produces such compounds. (0.5 pt each)

a. Scientific name:

b. Why are these compounds important?

Question 3

When making brie or camembert cheese, the initial cheese curd is packed into molds, washed, salted, and then inoculated with a fungus. The fungus will impart flavor as it further digests the young cheese and forms the rind of the cheese. Name one species of fungi (give the full scientific name –written properly) that is used in making brie. In which phylum does it belong? (0.5 pt each)

a. Scientific Name:b. Phylum:

Question 4

Name one ecological role that Fungi play in the environment. Explain why this is important. (1 pt each)

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Question 5

Although lichens and slime molds are not true fungi, we often study them along with fungal groups. What characteristics of these groups align them with Fungi? (1 pt each)

- a. Lichens:
- b. Slime molds: (1 pt)

Question 6

a. What is the mechanism that leads to coral bleaching? (1 pt)

b. Why is coral bleaching such a dire problem? (1 pt)

Question 7

All worms are not created equal, nor do they belong to the same phyla.

a. Name 2 of the "worms" shown above with their phylum. *Be sure to indicate which worm* you are naming in your answer.

b. Describe how movement differs in the 2 phyla that you labeled. (2 pts)

Question 8

Crinoids do not look much like the other organisms in their phylum.

a. To what phylum do they belong?

b. Name one key reason why they are placed in this phylum and not in another group? (0.5 pt each)

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Question 9

Your textbook divides the phylum Arthropoda into 4 major Classes: Chelicerata, Crustasea, Hexapoda and Myriapoda. (1 pt each)

a. Which Class is mostly aquatic, was represented on the Arthropod table in the Fungi/Invert lab, and were abundant in many of your plankton samples in the Aquatics Communities Lab?

- b. Give one example from this Class of Arthropoda.
- c. Describe one major characteristic that distinguishes this Class from the other three Classes?

Question 10

The organism pictured below belongs to the phylum Mollusca. (1 pt each)

- a. To which class of Mollusca does this animal belong?
- b. Without any obvious limbs, how does the pictured organism move?

c. If this organism did not have 8 shell-like plates on its back/dorsal side, but instead may lack an exoskeleton and move using muscular arms and/or a siphon for jet propulsion, in which Class of Mollusc would you now place it?