Name:

Take Home Portion

*Instructions: you are to answer these questions on your own. You may use your notes and your textbook, and any other reference materials (in the library or online) that you desire. You may not use any other person, classmate or not, as a reference or for assistance in answering these questions, including any materials from former Plant Biology students. The exam must be uploaded to Canvas (under “Exam 1 (take home)” for March 27th). Your answers must be received by 10:10 am on Wednesday, March 27th – late tests will be penalized as per the late policy in the syllabus.*

1). (18 points) Back to basics: you have been asked to tutor a struggling high school student about cells and their components. To help this student pass their upcoming biology exam, they ask you to help them learn about what is inside a cell. Please help them first by writing a note to them describing:

a). What are 3 organelles and 3 macromolecules (in both cases common to plants AND animals) that you would find inside a cell, and what is one main function of each?

Click here to enter text.

b). Because you are in Plant Biology, you want to highlight how great plants are. Please write another note that describes 3 features of the cell that that would be true only for a plant cell and not an animal cell, including a description of what makes each unique to plants.

Click here to enter text.

2). (12 points) Wandering along a stream, you come across a rather slimy, low-growing organism on a log next to the stream bed. It isn’t familiar to you, and you are hoping it is something novel so you can become famous as a botanist. You scoop some up and take it back home to try to figure out what it is. If your choices are a fungus, an algae, a bryophyte or a seedless plant, what are 2 distinct features for each that would help you in the identification? (These can be visible or microscopic features.)

Click here to enter text.

b). Second, what are four features that the algae, the bryophyte and the seedless plant share?

Click here to enter text.

3). (2 points) Just for fun – if you were dared to eat a type of plant covered on this exam (from fungus through seedless plants), which type would you want it eat, and why?

Click here to enter text.