## Grading Rubric for Questions 4-6

| Question | 0 | 1 | 2 | 3 |
| :--- | :--- | :--- | :--- | :--- |
| Explain how <br> you could use a <br> plasmid to make <br> a bacterial cell <br> glow. | No idea. | Demonstrates a <br> simple <br> understanding <br> of what a <br> plases an <br> atempt at the <br> question, but <br> the answer is and a <br> wildly incorrect. <br> buterium are <br> connect the <br> parts into a <br> functional <br> "glowing" <br> system. | Demonstrates a <br> correct <br> understanding <br> that plasmids <br> are DNA and <br> must enter a <br> bacterium for <br> "glowing" to <br> occur. |  |
| If you could use <br> a plasmid to do <br> anything, what <br> would you use it <br> for? Why? | No idea. | Would use the <br> plasmid in an <br> entirely <br> inappropriate <br> way (i.e. outside <br> of a microbial <br> system). | Understands the <br> appropriate use <br> of a plasmid but <br> answer <br> demonstrates <br> that the reader <br> cannot think of <br> a way a plasmid <br> would be useful. | Ideas <br> demonstrate <br> critical thinking. <br> Answers should <br> be reasonable <br> but need not be <br> entirely <br> realistic. |
| What is your <br> opinion of <br> synthetic <br> biology <br> (modification of <br> biological <br> systems to do <br> something <br> useful for man)? | "No idea," or no <br> attempt to <br> answer the <br> question. | Answer <br> demonstrates <br> that the reader <br> does not know <br> what synthetic <br> biology is. | The reader <br> understands the <br> term "synthetic <br> biology" well <br> enough to <br> articulate an <br> opinion but <br> cannot defend <br> it. | Articulates and <br> defends an <br> opinion. |

