

Name:

**Bio 111-01 Spring 17 Written Assignment #2**  
**Ecosystems of The Human Body (15 pts)**  
**Due 6/5**

The human body has its own ecosystem. It is home to bacteria, archaea, fungi, protists, viruses and microscopic animals! In fact, only about 10% of the cells traveling through life with you are your own. Please use your own words to answer the questions. Plagiarized assignments will receive a zero.

Go to: <http://learn.genetics.utah.edu/content/microbiome/>

Use this resource to answer the questions below: Please use complete sentences.

1. What is a microbiome?
2. What part of the body is home to the most diverse population of microbes?
3. Why do different parts of your body have different microbial communities?
4. Who gave you your first set of microbes?
5. Why do our microbiomes change as we get older?
6. Why do microbial populations vary among individuals of the same age?

7. What is a disease related to microbes? How do microbes cause this disease?
8. Microbes can also be helpful to us!
  - a. How do microbes protect us from infection?
  - b. How do microbes help our brains develop?
9. Microbes form symbiotic relationships with many organisms.
  - a. How do microbes benefit herbivores?
  - b. Why does this benefit vary among different species of herbivores?
10. Sometimes we need to control a serious bacterial infection with antibiotics. Macrolides are a type of antibiotic. How does this type of antibiotic kill bacteria?
11. The overuse of antibiotics can cause resistance to evolve in a population.

What is the difference between acquired and intrinsic resistance?
12. What are two approaches used by healthcare providers to prevent antibiotic resistance?
  - a.
  - b.