

## The Human Microbiome (pretest)

Name \_\_\_\_\_

Date \_\_\_\_\_

Please circle the BEST answer to the following questions.

- 1) **True or False? Microbes, such as viruses and bacteria, who live in and on the human body can be beneficial to humans.**
  - a. True. Some microbes can serve useful functions in humans, however most microbes are harmful.
  - b. True. Some microbes can serve useful functions in humans and most microbes are not harmful.
  - c. False. Microbes do not serve useful functions in humans because most microbes are harmful.
  - d. False. Microbes do not serve useful functions in humans, however most microbes are not harmful.
  
- 2) **How can the microbes living in and on our body respond to changes in our body, such as a fever?**
  - a. The types of microbes can change.
  - b. The numbers of microbes can change.
  - c. Once they are established, the microbes do not change.
  - d. The types and numbers of microbes can change.
  
- 3) **How can taking antibiotics (medicine that fights infections) harm microbes in humans?**
  - a. Antibiotics RARELY harm microbes.
  - b. Antibiotics target ONLY disease-causing microbes.
  - c. Antibiotics target MOSTLY disease-causing microbes.
  - d. Antibiotics DO NOT target disease-causing microbes.
  
- 4) **Bacteria that are no longer killed effectively by antibiotics (medicine that fights infections) are called “antibiotic resistant.” Which of the following is NOT true about bacteria that are antibiotic resistant?**
  - a. These bacteria are naturally resistant to certain antibiotics.
  - b. These bacteria can spread resistance through reproduction.
  - c. These bacteria *can* transfer resistance genes to other bacteria through DNA transfer.
  - d. These bacteria *cannot* transfer resistance genes to other bacteria through DNA transfer.

**5) Different people's cell phones are home to different types of microbes. Why might this be?**

- a. The types of microbes living on cell phones changes randomly.
- b. The cell phone owners did not wash their hands after using the bathroom.
- c. The types of microbes living on cell phones reflect the same types of microbes living on the skin of their owners.
- d. Different cell phones have different abiotic (non-living) factors. These factors select for different types of microbes that are able to survive on different types of cell phones.

**6) Which of the following is true of the microbes living in or on our bodies?**

- a. Most of these microbes contribute to disease.
- b. We cannot be healthy without these microbes.
- c. Killing these microbes would make us healthier.
- d. Both a and c

**7) The human body can be thought of as an ecosystem. Why?**

- a. It includes biotic (or living) factors
- b. It includes abiotic (or non-living) factors
- c. It changes little over time
- d. Both a and b

**8) Microbes may have a relationship with chronic diseases like asthma and diabetes. What is this relationship?**

- a. Microbes almost always cause these diseases.
- b. These diseases kill the microbes in our bodies.
- c. People with these diseases have groups of microbes that are out of balance.
- d. Microbes have nothing to do with these chronic diseases. Microbes are related to contagious diseases.