

Name: _____

Total: **/25**

1. Name a good kind of bacteria for the environment. What does it do? **/1**

2. Name a good kind of bacteria for our body. What does it do? **/1**

3. What is one exciting possibility that viruses present us? (Hint: Genetics.) **/1**

4. Name and explain at least 4 of our body's natural defenses against microbes. **/4**

5. Complex structures on a bacterium that produce movement are called

- A. hair.
- B. cilia.
- C. flagella.
- D. propellers.

6. Bacteria can cause disease by attacking cells or by releasing _____ that harm the body.

7. A(n) _____ is a preparation of weakened or killed pathogens or inactivated toxins that can prompt the body to produce immunity to a disease.

Match the bacterial control method with an example of the method

Bacterial Control Method	Example
_____ 8. physical removal	A. Putting leftover soup in a cold place.
_____ 9. disinfectant	B. Boiling milk before consumption.
_____ 10. canning	C. Using salt, vinegar, or sugar to preserve food.
_____ 11. pasteurization	D. Washing hands.
_____ 12. refrigeration	E. Using alcohol or ammonia (NH ₃) to clean.
_____ 13. chemical treatment	E. Sealing food in airtight container or package.

14. A person has blisters on the skin. What disease might he or she most likely have?

- A. HPV (papillomavirus)
- B. AIDS (HIV)
- C. chlamydia
- D. genital herpes

15. A person has pain or burning when urinating (peeing). What disease might he or she most likely have?

- A. HPV (papillomavirus)
- B. AIDS (HIV)
- C. chlamydia
- D. genital herpes

16. How can we prevent bacteria from developing resistance to antibiotics? /1

Answer must make reference to “dosage of medicine” and/or “prescription”.

17. Describe the stages in AIDS (HIV) infection. What happens to our body? /3

18. Describe irreducible complexity and give an example. /2

19. Lenski's long-term experiment involved watching trillions of bacteria over 60,000 generations undergoing random change and natural selection.

Describe the kind of evolution witnessed. /1

20. Random change and natural selection does not lead to what kind of evolution? /1

Bonus: What is more exciting than waiting a million years for something to happen?
