

## Answer Key

### Multiple Choice

1. a.
2. d.
3. b.
4. d.
5. b.
6. d.

### Short Answer

1. While mild food poisoning results in an upset stomach and a bit of diarrhea, a severe case of food poisoning also includes abdominal cramps and vomiting. Once the bacteria multiply in a person's body, the individual gets sicker and prolonged vomiting and diarrhea result in dehydration, a life-threatening condition, and the loss of critical tissue salts. It is important to recognize these symptoms because food poisoning can be fatal.

2. Food poisoning is especially dangerous in children and the elderly because dehydration is more easily fatal in these populations.

3. Harmful bacteria cannot multiply in cold temperatures.

4. Harmful animal strains of *E. coli* cause illness when they reach the human intestinal tract and multiply. These harmful bacteria lodge in the human intestinal wall, attaching to human cells with their special surface proteins. The capsule-shaped bacteria also secrete a poison and damage the cells to which they are attached. Bloody diarrhea results as the affected intestinal cells die.

5. Antibiotics are designed to kill bacteria. Probiotics contain helpful bacteria to restore the intestinal tract to a proper balance.

6. Individual response

7. Individual response