PART I. FILL IN THE BLANKS

Word Bank for questions #1 - 3:
predator  vector  antibody  pathogen  host  habitat

1. A __________ is an animal that can transmit a disease from one animal to another.
2. A __________ is an animal whose body provides food and shelter for another organism.
3. A __________ is an organism that causes a disease.

Word Bank for questions #4 - 6:
bacterium  mosquito  tick  virus  deer  human

4. Name one reservoir host for Lyme disease: ____________________
5. The pathogen for Lyme disease is a ____________________.
6. What is the vector for West Nile virus? ____________________

PART II. SELECT ONE ANSWER FOR THE FOLLOWING QUESTIONS:

7. In which season do you have the GREATEST risk of getting West Nile virus?
   a. spring  
   b. winter  
   c. fall  
   d. summer

8. Ticks are arachnids and mosquitoes are insects, but they are both arthropods. Which answer BEST describes how they are different?
   a. different number of body segments  
   b. different number of legs  
   c. different number of both body segments and legs  
   d. different number of antennae
9. When is it most likely that mosquitoes will transmit West Nile and that ticks will transmit Lyme disease?
   a. As soon as they bite
   b. Mosquitoes as soon as they bite; ticks, 1-2 hours after they bite
   c. Mosquitoes, 1-2 hours after they bite; ticks, 12-24 hours after they bite
   d. Mosquitoes as soon as they bite; ticks, 36-48 hours after they bite

10. Which stage of the tick life cycle is most dangerous to humans?
    a. egg
    b. larva
    c. nymph
    d. adult

11. What can speed up the development of mosquitoes?
    a. higher temperatures
    b. cooler temperatures
    c. more water
    d. more shade

12. What do Lyme disease and West Nile virus have in common?
    a. Both cause nausea and vomiting.
    b. Both can be passed to another person by a cough or sneeze.
    c. Both are zoonoses that spread to humans.
    d. Both can be prevented by careful hand-washing.

13. Which one of the following statements is NOT true?
    a. Antibiotics can only kill certain bacteria.
    b. Antibiotics can be made from plants.
    c. Antibiotics can kill viruses.
    d. Antibiotics can stop certain bacteria from growing.

14. Which statement BEST describes how bacteria develop resistance to antibiotics?
    a. Bacteria can mutate quickly and no longer be killed by antibiotics that used to kill them.
    b. Resistant bacteria survive when people start to feel better and stop taking their antibiotics.
    c. Using too many antibiotics at the same time can cause allergic reactions in some people.
    d. Bacteria can mutate quickly and develop new diseases that are unknown.

15. The adaptive or acquired immune system attacks:
    a. viruses but not bacteria
    b. bacteria but not viruses
    c. both viruses and bacteria
    d. only red blood cells
16. Antibody activity is triggered by:
   a. antigens
   b. inflammation
   c. red blood cells
   d. increase in body temperature

17. You can diagnose Lyme disease with a blood test. The Lyme test can show that:
   a. the patient has symptoms of fever, a bull's-eye rash and body aches.
   b. the patient has been bitten by a tick within a two-week period.
   c. the patient has an active virus and too many white blood cells.
   d. the patient has developed antibodies which react to an antigen for the disease.

18. How have people learned to control harmful bacteria without antibiotics?
   a. By growing vegetables near a stream
   b. By using garlic and other spices on food
   c. By planting rice and beans together
   d. By burning incense to keep away mosquitoes

19. Growing bacteria successfully in the lab requires:
   a. A Petri dish and a disease vector
   b. A culture medium and an alcohol swab
   c. A culture medium and a warm environment
   d. A disease vector and a warm pathogen