Bacteriology Notesheet by C Kohn

Name: Hour Date:

Date Assignment is due: *before quiz*  Why late? Score: + ✓ -
 Day of Week Date If your project was late, describe why

**Unit Preview** – complete before you start your notes. This is a pre-test to see what you already know and understand.

**Weekly Schedule: See Board and record**
Mon

Tues

Wed

Thurs

Fri

*Page through this notesheet. Then answer the questions below:*
Circle one: *I need to review my notes & practice before the quiz.* Definitely – Yes – Sort of - No

Circle one: *I have never seen or heard of some of these concepts.* Definitely – Yes – Sort of - No

Circle one: *This may be a challenging unit for me personally.* Definitely – Yes – Sort of - No

Circle one: *I may need extra strategies for some topics/vocab.* Definitely – Yes – Sort of - No

What happens to an organism’s body that causes them to die from an infection?

How do bacteria make you sick? What are they actually doing to your body or your cells?

How does a virus make you sick? What are they actually doing to your body or your cells?

What is the difference between bacteria and viruses?

**Directions**: Use the accompanying PowerPoint (<http://bit.ly/vet-bacteriology>) to complete this sheet. This sheet will be due upon the completion of the PowerPoint in class. These assignments are graded on a +/✓/- scale.

1. Define Virus:
2. Why are viruses not considered to be alive?
3. How do viruses reproduce?
4. How do viruses damage the body of the infected organism?
5. Draw how a virus infects a cell in the space below. Be sure to label all parts including the virus, the cell, and what happens inside the cell after the virus has infected it.
6. What are bacteria?
7. What is the difference between prokaryotic and eukaryotic cells?
8. How does the DNA of a bacterium differ from a eukaryotic cell?
9. What is a plasmid?
10. Why would a medical professional be concerned about a bacterial cell’s plasmids?
11. The of a bacterial cell to antibiotics is mostly determined by its
12. Why do scientists have to stain bacteria?

1. Two kinds of stain are used for bacteria; one and one
2. Bacterial cells that absorb the violet stain appear ; those that do not appear
3. Gram-positive bacteria stain ; Gram-negative stain
4. Both gram-positive and gram-negative bacterial cells have multiple

to them from their microscopic
5. However, gram-negative cells have an . Gram-negative bacteria have a

“shield” – an outer that serves as a ‘ ’ layer
6. How does this third layer in gram negative bacteria affect the treatment of their diseases?
7. Draw the differences between gram-negative and gram-positive bacteria below:
8. Which bacteria are easier to treat, gram negative or gram positive Why?
9. Besides affecting antibiotic susceptibility, in what second way does the third membrane of gram-negative bacteria affect its host?

*The outer layer is composed of*
10. The main concern of bacterial infections are , or a substance that
11. List and describe the two kinds of toxins:
12. Exotoxins refer to the fact that they have to the bacterial cell to be effective.
13. Endotoxins refer to the fact that the toxins can be the structure of the bacterial cell and still be effective.
14. What problems to exotoxins create?
15. What problems do endotoxins create?
16. What is the leading cause of death in ICUs in US hospitals?
17. Define Bacteremia:
18. Define Sepsis:
19. How does the body change during sepsis?
20. What is septic shock?
21. Usually septic shock causes
22. The most affected organs are the
23. Why does the circulatory system fail during septic shock?
24. Why does the respiratory system fail during septic shock?
25. Damaged tissue causes an where blood vessels

increase there , become , and
26. Why is this good?
27. What is the histamine response?
28. Systemic response means that
29. What are the four conditions necessary for septic shock to occur?
30. You are a veterinarian called in to treat a severe bacterial infection in a sick animal.

Which is more of a concern to you, the presence of the bacteria of the patient’s body, or the response of the patient’s body to the bacteria?

\_ Explain:
31. Which would be worse for the animal’s body, a gram-negative or gram-positive bacterial infection?

Explain:
32. Which would be worse for the animal’s body, a bacteria with exotoxins or endotoxins?

Explain:

1. What are three symptoms in this animal that would indicate that septic shock is occurring or will occur?

Unit Wrap-up C. Kohn, Agricultural Sciences - Waterford WI

This page is designed to help raise your grade while enabling you to develop skills you will need for after high
school. You will need to complete every question and blank in order to receive full credit for your notes. Note: if you cannot come up with a strategy to remember a difficult concept on your own, see your instructor for help.

1. What is a topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
2. What is a 2nd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
3. What is a 3rd topic or concept from this unit that you found to be more challenging? Write or describe below:

In the space below, create a mnemonic, rhyme, analogy, or other strategy to help you remember this particular concept:
4. Circle the most appropriate response. You will only be graded on whether or not you completed this section, so be entirely honest with yourself when completing this section.

Circle one: *I used my notes outside of class to prepare for the quiz.* Definitely – Yes – Sort of - No

Circle one: *I took extra notes in the margins for very difficult concepts.* Definitely – Yes – Sort of - No

Circle one: *I created a personal strategy for at least three difficult items.* Definitely – Yes – Sort of - No

Circle one: *I was very involved and actively studying during the quiz review.* Definitely – Yes – Sort of - No

Circle one: *I think I will be satisfied with the quiz grade I received this week.* Definitely – Yes – Sort of - No

Circle one: *I might need to meet with the instructor outside of class.* Definitely – Yes – Sort of - No