

# ***General Microbiology TEST 1 Review***

1. *Be able to identify the parts of the bacterium cell, with emphasis on Figure 3.4*
2. *What are Archaea and how is an Archaeal cell different and similar to cells from Bacteria.*
3. *Explain the principle behind the use of the Pasteur flask in studies on spontaneous generation.*
4. *Outline Koch's postulates.*
5. *Explain and identify the parts and significance of the endospore.*
6. *What is chemotaxis?*
7. *What is the importance of the microscope?*
8. *What is the chemical composition of peptidoglycan and what is its function in the Bacterial cell?*  
  
*How are the gram positive and gram negative cell wall different?*  
*How are they the same?*
9. *What are the major morphologies (cell shape and arrangement) of prokaryotes?*
10. *What is the difference between a gram-negative and gram-positive cell envelope (cell wall + membrane(s))? What is the chemical composition and function of each layer?*
11. *What is the importance of the cell wall with relations to staining?*
12. *Name the internal and external structures that must be or may be in prokaryotic cells and describe their chemical make-up or their structure, location within the cell, and their function.*
13. *Be able to name the different type of microscopes and what they are used for. Not in a great amount of detail.*
14. *Both lysozyme and penicillin bring about bacterial cell lysis but by different mechanisms. Describe the mechanism by which each of these agents causes cell lysis.*
15. *Be able to explain the significance of Louis Pasteur and the role he played in the history of microbiology.*
16. *Why do we study microfobiology?*
17. *Understand Magnification and Resolution*
18. *Differential Staining*
19. *Size, Shape and Arrangement of bacteria*
20. *Details about the Prokaryotic Cell Structure: KNOW BACKWARD AND FORWARD!!*