

Name: _____ Block: ____ Date: _____

Microbiology Chapter 5, 6 and 7 Review
sheet of paper.

Please complete the review on a separate

Define the following terms.

1. Activation energy	16. Metabolism
2. Aerobic respiration	17. Oxidation
3. Allosteric inhibition	18. Phosphorylation
4. amphibolic	19. Photoautotroph
5. Anabolism	20. Reduction
6. Anaerobic respiration	21. Substrate
7. Catabolism	22. Disinfectant
8. Catalyst	23. Pasteurization
9. Chemoautotroph	24. Thermal Death Point
10. Coenzyme	25. Antibiotic
11. Competitive inhibition	26. Autoclave
12. Enzyme	27. Bacteriostatic
13. Feedback inhibition	28. Decimal Reduction Time
14. Fermentation	29. Desiccation
15. Glycolysis	30. Sterilization

Complete the following short answer questions:

1. What are some (list three) factors that affect the efficiency of enzymes in reactions?
2. List and describe the four pathways of energy use.
3. Name 3 of the 6 important micronutrients and their function.
4. Draw a graph of the four stages of bacterial growth, label and define the stages.
5. What are 5 ways to directly measure microbial growth?
6. Differentiate competitive/non-competitive inhibition.
7. Describe and relate catabolism and anabolism.
8. Define: colony
9. Differentiate differential v. selective v. enrichment medias.
10. Is O₂ required for fermentation? What are the possible products of fermentation?
11. Describe and differentiate catalase and peroxidase.

12. Capnophiles have what type of environmental requirement?
13. What does indole test for?
14. In terms of microbiology “immediate” can be how long?
15. What is a catalyst?
16. Differentiate between aerobe, obligate anaerobe, facultative anaerobe.
17. How many ATP are produced through the full oxidation of glucose?
18. What are the main organic elements?
19. List and describe the names of bacteria based on their optimum temperatures.
20. Give the classifications of a.) an organism that thrives in acidic conditions b.) an organism that thrives in high salt environments and c.) an organism that thrives in high pressure environments.
21. What type of organism(s) use CO₂ for their carbon source?
22. What does an organism use oxygen for?
23. Describe binary fission.
24. What is the optimum pH for most bacteria?
25. What substances can be used to dehydrate bacteria?
26. Write the chemical reactions (summary) for photosynthesis and cellular respiration.
27. How do you test to see if an organism produces catalase?
28. List the seven classes of enzyme and a quick way to remember what each one does.
29. List and describe the three “types” of air conditions.
30. Describe and define superoxide free radical and superoxide dismutase.
31. What are lithotrophs.
32. Differentiate between disinfectant and sterilization.
33. What type of bacteria is generally more resistant to disinfectants and antiseptics?
34. What can survive autoclaving?
35. A rapid test in microbiology takes _____ or less. (time)