AP Biology **Name _____**
Chapter 18 Guided Reading

1. What are the two ways that metabolic control can occur within bacteria?

2. What is the key advantage of grouping genes of related function in to one transcription unit?

3. What is this “switch” called?

4. Where is an operator positioned?

5. What does the operator control?

6. What is the name for the operator, promoter, and the genes they control?

7. What can happen if the trp operon is turned “on”?

8. What turns the “switch” off?

9. How does a repressor work?

10. What gene controls the making of the trp repressor protein?

11. What are the two states that the operator vacillates (switches between)?

12. How is the trp repressor protein and allosteric protein?

13. Define corepressor.

14. What are the two methods of negative gene regulation?

15. Why is the trp operon considered repressible?

16. What is the definition of an inducible operon?

17. What does the inducer do?

18. Why are repressible enzymes generally associated with anabolic pathways and how is this an advantage to the organism?

19. How does positive gene regulation work?

20. Negative feedback has an on/off switch and positive feedback can only amplify the response – how does this statement connect with negative and positive gene regulation?