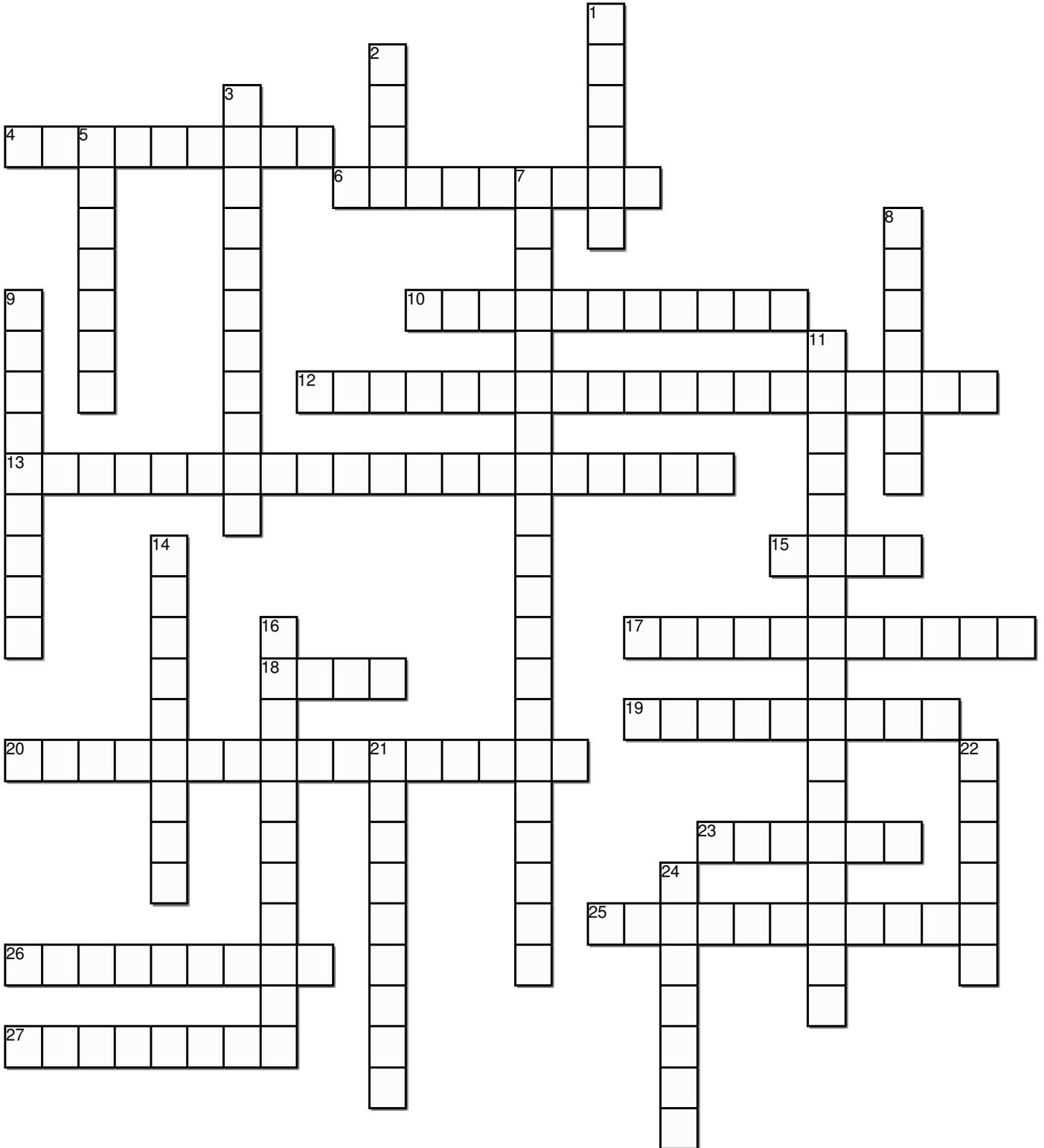


Name: _____

Exam 4 Review Crossword

Complete the crossword below



Across

4. Located far from the regulatory promoter that bind to transcriptional activator proteins
6. A DNA sequence that binds an insulator protein, which blocks action of an enhancer on a promoter when it lies between the enhancer and the promoter
10. Chromatin must be _____ for genes to be transcribed
12. A result of changes in the DNA organization around nucleosomes
13. Positive control in response to low glucose that uses the cAMP-CAP complex
15. The product of this gene is beta-galactosidase
17. Mutation in an F factor gene affects expression of one or more genes in the bacterial genome
18. The product of this gene is permease
19. Mutation affects expression of genes on the same DNA strand on which it is located
20. The result of transcription and translation of the lacI gene results in:
23. Non-methylated DNA is correlated with active or inhibited transcription?
25. Exchange of genetic material between two bacteria
26. A positive operon uses what type of regulatory protein?
27. This product of the lac operon allows lactose to enter the cell

Down

1. The basic unit of transcriptional control in bacteria
2. Loss-of-function mutants can display varying degrees of _____ regulation
3. An operon that turns transcription from on to off
5. Modification to this loosen the association with the DNA by neutralizing its positive charge
7. When a molecule binds to the regulatory, rather than the catalytic domain of an enzyme blocking its normal function it is known as...
8. F factor contains a small number of genes, one of the genes produces important proteins that help form a _____
9. An operon that turns transcription from off to on
11. This product of the lac operon converts lactose to allolactose
14. Clustered regions of the DNA enriched with methylation
16. What inhibits the lac repressor from binding to the operator?
21. A negative operon uses what type of regulatory protein?
22. The repressor of the lac operon will be bound to the DNA when lactose is
24. A precursor of the end product of a biochemical pathway that is used to regulate a metabolic pathway