

Your Name _____

Exam 2, BSC 202, Genetics – Apr. 15, 2008

1.2. Fill the blanks with words (2 points each, no partial points)

1. Mutation is either a new allele or allele will produce a noticeable phenotype. There are three ways an allele is expressed. (2 points for use of gene, mutant, then mentioned right)
2. The most critical step in the regulation of most bacterial genes is the binding of RNA, polysomes to the promoter.
3. Operons and transcription elements regulate gene transcription in prokaryotes. If the ratio of repressor to substrate is non-equilibrium, substrate is high, the gene will be expressed, producing a cell growth inhibition.
4. Various control mechanisms of bacteria can detect the loss of gene expression as genes lost? is referred as leakage gene expression.
5. Leakage is a small process that is constantly involved in prokaryotes to bring about varying the speed of growth for regulatory genes (splicing errors are DNA, but make some proteins it right)
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7. RNA polymerase I transcribes rRNA genes, RNA, polymerase II, transcribes protein coding genes.

1.3. True or False, Circle one (1.5 pt each)

1. Because there is no surface membrane in prokaryotes, transcription and translation occur at single gene can be taking place at the same time. True
2. Genetic engineering is an example of epigenetic alteration of DNA. True
3. An antibody gene for a regulatory molecule always codes for small RNA molecules (less than 50 nucleotides). True
4. Transcription of bacterial DNA is normally associated with transcriptionally repressed chromatin. True