

Your Name \_\_\_\_\_

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

**1.2. Fill the blanks with words (2 points ea. for partial words)**

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 word correctly, then mentioned right)
2. The most critical step in the regulation of most bacterial genes is the binding of RNA polimerase 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 off gene will be expressed, producing a lot with trans transcription.
4. Various repressor modifications of the repressor can change the level of gene expression as genes that is referred as allosteric allo regulation.
5. Lehman is a small protein that is covalently attached to polypeptides in long chains, carrying the signal protein for degradation once splicing occurs (the fact make some proteins it right).
6. Enhancer is a DNA sequence that regulates gene function as a distance between genes they are regulating, either 5' or 3' of the gene.
7. RNA polymerase I transcribes rRNA genes rRNA RNA RNA using a DNA template.

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

1. Because there is one active repressor in prokaryotes, transcription and translation occur at single gene can be taking place at the same.  
True True
2. Genetic engineering is an example of epigenetic alteration of DNA.  
True False
3. An antibody that is a regulatory molecule always come in small DNA molecules (less than 10 nucleotides).  
True False
4. Methylation of DNA (5' or 3') is usually associated with transcriptionally repressed chromatin.  
True False