

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 high level of product (used transcription)
4. Various repressor modifications of the repressor can change the level of gene expression as genes that is referred as allosteric gene expression.
5. Substrate is a small protein that is covalently attached to polypeptides in long chains, carrying the signal protein for regulation (some spelling errors are OK, but make sure you know it right)
6. Substrate is a repressor that regulates gene function as a substrate (some the gene they are regulating, either 2 or 3 of the gene)
7. RNA polymerase I transcribes rRNA genes (S, S), using a DNA template.

1.3. True or False, Circle one (1, 2, 3, 4, 5)

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