

Name _____

Exam 3, BSC 202, Genetics – Apr. 15, 2008

1.2. Fill the blank with correct 2-letter or 3-letter word.

1. Mutation is either a new allele or allele will produce a noticeable phenotype. There are two ways an allele is expressed. (2-letter word for 1st blank, 3-letter word for 2nd)
2. The most critical step in the regulation of gene function is the timing of RNA production in the genome.
3. Transcription and translation of genetic messages are characterized as coupled. If the rate of molecular transcription is unacceptably slow, the cell gene will be expressed, producing a cell death phenotype.
4. Various control mechanisms of genetic can detect the loss of gene expression as gene loss is referred as silence or null phenotype.
5. Epistasis is a small process that is usually involved in polygenic or long chains requiring the input of multiple genes (epistasis is gene-gene interaction. One gene can modify the effect of another gene).
6. Epistasis is a process that requires gene function at a distance from the gene they are regulating, either in or out of the gene.
7. RNA polymerase II transcribes sequences RNA coding or non-coding.

1.3. True or False, Circle one (T or F)

1. Because there is no cellular mechanism to preferentially transcribe and translate those a single gene can be taking place at the same time. True
2. Genetic engineering is an example of epigenetic alteration of DNA. True
3. A single gene can be expressed multiple times over an individual's lifetime. True
4. Mutations of the DNA are usually associated with transcriptionally expressed sequences. True