BIOL 100 – [illegible]

Worksheet for Chapter 11 – Control of Gene Expression

1. ___ is the turning off and on of genes.

2. What does the term "gene expression" mean?

3. In prokaryotes, a ___ is a cluster of genes with related functions. It includes ___, ___, and ___.

4. The ___ is the start sequence where the RNA polymerase binds.

5. The ___ is the switch (on/off) for the binding of RNA polymerase to the DNA molecule.

6. To stop gene expression, a ___ binds to the ___ (switch), stopping ___.

7. A ___ gene, located ___, codes for the repressor.

8. How does the lac operon work?

9. How does the trp operon work?

10. What is cellular differentiation?

11. Differentiated cells have ___ (more/less/the same) number of genes as undifferentiated cells.

12. A carrot root cell can give rise to an entire carrot plant and a salamander can regrow its leg. These examples demonstrate what?

13. ___ allows very long chromosome strands to fit into cells.

14. In DNA packing, ___ winds around clusters of ___ forming a string of bead-like ___.

15. DNA packing ___ (increases/decreases) the expression of genes.