Bio Chapter 11 review gene expression

1. Define structural gene, promoter, and operator.
2. Draw and label a lac operon at work using the terms: lactose, inducer, repressor protein, RNA polymerase, regulator gene, promoter, operator, structural gene, and lac operon.
3. Define intron and exon and tell which ones are transcripted and translated.
4. Explain the difference between homeotic genes and homeobox sequences and list one example each.
5. What are the three ways that cells can have mutations to cause cancer?
6. Why is it generally acceptable for only one process to have a mutation?
7. Name three carcinogens.
8. List and describe the four types of cancer.
9. Name three risk factors that increase the chances of developing cancer.
10. Why are all the genes not turned on in every cell?