BSC 1005: Life Science

Activity 7: Chapter 7 GMO *Name(s)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

Complete the following problems. Use your class notes to help find the answers.

1. What is genetic Engineering?
2. Describe the flow of genetic information in a cell.
3. Complete the following:

**Transcription:**

* **What does it start with? (hint: DNA, mRNA, tRNA?)**
* **What does it end with?**
* **Where does it take place?**
* **What enzyme is used?**

**Translation:**

* **Where does this occur?**
* **What are the function of:**
  + **mRNA**
  + **amino acids**
  + **Ribosomes**
  + **tRNA**
* **What is a codon? Anticodon?**

1. Define mutation. What are 3 outcomes of mutations?
2. How do bacteria make the cow protein BGH?
3. What other important proteins are made in engineered bacteria and used by humans?
4. What is a GMO? Are they good or bad?
5. What are stem cells and their potential uses?
6. Describe gene therapy.