

BOZEMAN BIOLOGY VIDEO GUIDE—DNA Technology

Name _____ Date _____ Per _____

1. What do we use to cut DNA? Where are they found?

2. Briefly describe the process of using restriction enzymes to create recombinant DNA:

3. What is the technique used to copy DNA?

3a. List the steps of this process:

1. Find the segment of DNA that you want to copy

2. _____

3. _____

4. What is gel electrophoresis used for?

4a. Bigger strands of DNA move through the gel more _____ than smaller strands.

5. To create a gene library, you insert genes of interest into _____.

6. To create a probe, you tag a piece of complementary DNA (cDNA) with _____ and then allow this single stranded piece of DNA to anneal to your DNA of interest.

7. Describe how bacteria can make insulin for us:

8. How can the DNA techniques described above be used to convict a person?

9. Genomics is the process of looking at _____.

10. T/F: We were able to sequence all of the genes in the drosophila fly, but not yet the human genome _____.