**Biology Chapter 13 quiz Study guide**

1. Give examples of animals that have been produced by selective breeding

2. What is the advantage of selective breeding?

3. What process is most likely to bring together two recessive alleles for a genetic defect?

4. To make a new line of plants, what process did Burbank use?

5. What is the crossing of buffalo and cattle to produce beefalo an example of?

6. How did scientists produce oil-eating bacteria?

7.Why do breeders induce mutations in organisms?

8. What Is the function of gel electrophoresis?

9. What is the process of making changes in the DNA code of a living organism called?

10.Define recombinant DNA

11. What happens during transformation?

12. What is a genetic marker?

13. How can you tell if the transformation of a plant cell is successful?

14. Suppose a bacterial culture were mixed with recombinant plasmids containing a gene for resistance to penicillin. The bacterial culture was then treated with penicillin. What will happen to the bacteria with the plasmid? Without it?

15. What kind of technique do scientists use to make transgenic organisms?

16. What is an advantage of using transgenic bacteria to produce human proteins?

17. What has been an advantage of producing transgenic plants?

18. What kind of cell (or cells) was used to make Dolly?

19. What is a clone?

**Short Answer**

20. What does polymerase chain reaction enable scientists to make?

**# 21 Optional extra credit-5 pts**

21. How can gel electrophoresis be used to tell whether a transformation experiment was successful?