

# Practice Exam #2

## **Biotechnology**

1. Draw out the basic steps involved in cloning a sheep.
  
  
  
  
  
  
  
  
  
  
2. You hear a friend say that they will not eat GMO foods. What does GMO mean, and do you agree that they shouldn't be eaten.

## **Energy/ATP:**

3. Where does ATP store energy?
  
  
  
  
  
  
  
4. What organelle create energy in a plant and how does it do that?
  - a. Explain how Surface Area is used)

## **Cell Respiration:**

5. What is the Equation for Cellular Respiration?
  
  
  
  
  
  
  
6. Why do you breathe out CO<sub>2</sub>?
  
  
  
  
  
  
  
7. What is the main purpose of animals breathing in O<sub>2</sub>?

8. Cell Respiration has 3 steps:

Names the step			
Where it happens (be specific)			
Main Function			

### **Plants – Physiology**

9. How do plants and animals work together? (hint, energy and gasses)

10. Compare and contrast plant and animal cells.

11. How do roots increase their surface area, and what purpose does that serve?

### **Plants – Evolution:**

12. What advantage to land plants have?

13. What is a bryophyte and how does it breed? What are its habitat requirements?

14. How are flowers an improvement over cones?

15. What limitations do spores have and why?

## **Plants – Photosynthesis**

16. Why are most plant leaves green?
17. What is the main purpose of photosynthesis?
18. Why do plants take in CO<sub>2</sub>?
19. What does photosynthesis have to do with chemical bonds and energy?
20. Why do plants need water?
21. How is the electron transport chain in the mitochondria similar to the one in the chloroplast? How are they different?