**Midterm Review**

**Fall 2013**

1. **The macromolecule that holds your genetic information and the plan for manufacturing proteins is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
2. **The polysaccharide that stores energy in muscles is glycogen.**
3. **Any chemical that ends in the suffix “ase” is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
4. **The three parts of a nucleotide are the \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
5. **The monomer monosaccharide makes us which macromolecule?**
6. **An organic molecule must contain the elements \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
7. **Any cell that contains a true nucleus and specialized organelles is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
8. **Proteins are produced by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
9. **The structure responsible for maintaining homeostasis in cells is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
10. **The organelle that converts carbohydrates into ATP is the:**
11. **Cell membranes are constructed mostly of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
12. **Two organelles found in plant cells but not in animal cells are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
13. **The movement of molecules from an area of high concentration to low concentration is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
14. **The movement of water from an area of high concentration to low concentration is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
15. **The source of energy in all ecosystems is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
16. **Autotrophs use the process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to make their food.**
17. **Write the equation for cellular respiration.**
18. **Write the equation for photosynthesis.**
19. **Aerobic cellular respiration produces \_\_\_\_\_\_\_\_\_\_ molecules of ATP per cycle.**
20. **Lactic acid fermentation (anaerobic respiration) produces \_\_\_\_\_\_\_\_\_\_\_ molecules of ATP per cycle.**
21. **Lactic acid occurs in what cells in the body?**
22. **The term aerobic means the process uses \_\_\_\_\_\_\_\_\_\_\_.**
23. **Light that is colored \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ will not be absorbed by plants.**
24. **Plants gather the sun’s energy using light absorbing molecules called pigments.**
25. **What did Watson and Crick discovered about the DNA molecule?**
26. **The process that explains how a nerve cell and a muscle cell can both develop from the same fertilized egg is differentiation.**
27. **\*\*\*\* Be sure you know how to make a COMPLIMENTARY STRAND of DNA.**
28. **The four bases in DNA are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
29. **The four bases in RNA are \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
30. **Any change in the sequence of bases in DNA is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
31. **Which is more damaging- a point mutation or a frameshift mutation?**
32. **The steps in producing a transgenic bacteria are:**
33. **When the genes of one organism are inserted into another organism it is referred to by these three names:**

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1. **Drought resistant crops and bacteria that produce insulin are both the result of \_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
2. **If you do not understand part of the procedure in a lab you should:**
3. **Goggles should be worn when?**
4. **When the concentration of glucose falls below a certain level, more glucose is moved into the bloodstream. This process illustrates what?**