

BIO 110 Lab Midterm Study Guide

State TRUE or FALSE for the following statements:

1. The function of the safety shower is to ~~wash reagent bottles.~~ **FALSE** ~~wash chemicals off your body~~ _____
2. If chemicals get into your eyes, you should wash them out in the eye wash fountain. **TRUE** _____
3. Always pour unused chemicals back into the original containers. **FALSE** _____
4. The student is responsible for cleaning up the lab. **TRUE** _____
5. If a glass breakage occurs in the laboratory you should leave it where it is without telling anyone. **FALSE** _____
6. In case of fire in the lab, notify the teacher at once and then prepare to clean the laboratory. _____
7. Evacuate the building if there is a fire in the lab. **TRUE** _____
8. Hypothesis is a statement that provides a possible answer to a question or an explanation for an observation that can be tested. **TRUE** _____
9. pH of 7 indicates the solution is ~~an acid.~~ **FALSE** ~~neutral~~ _____
10. Distilled water has a pH of 7 and therefore is neutral. **TRUE** _____
11. Household cleaners are basic in nature and have a pH between 12 and 13. **TRUE** _____
12. Lemon juice has a pH of 3 and therefore is ~~neutral.~~ **FALSE** ~~an acid~~ _____
13. Plant cells have a cell wall. **TRUE** _____
14. When looking through a microscope, if you move the slide slightly to the right, the image appears to move ~~to the right.~~ **FALSE** ~~to the left~~ _____
15. Considering the ocular lenses magnify 10X and the low power objective lens magnifies 10X, the TOTAL magnification would be ~~20X.~~ **FALSE** ~~100X~~ _____
16. When looking through a microscope, the image appears inverted. **TRUE** _____
17. As you increase magnification, you are able to see ~~more~~ of the image. **FALSE** ~~less~~ _____
18. The chloroplasts ~~hold waste~~ for the cell. **FALSE** ~~carry out photosynthesis~~ _____
19. The function of the cell wall is ~~to hold DNA.~~ **FALSE** ~~protection~~ _____
20. The nucleus is the dark circular organelle often located near the center of the cell. **TRUE** _____
21. The jellylike substance that fills the interior of a cell is the ~~endoplasmic reticulum.~~ **FALSE** ~~cytoplasm~~ _____
22. The cell wall protects the cell from the environment. **TRUE** _____

Answer the following questions:

23. When using the metric system, length is measured in:
A. Grams B. **Centimeters** C. Yards
24. When using the metric system, weight is measured in:
A. **Kilograms** B. Meters C. Yards
25. The best choice among the given metric units to measure the distance between 2 cities is:
A. **Kilometers** B. Centimeters C. Millimeters
26. Barry is a young man of average height. What should be his height?
A. 1.654 cm B. 16.45 cm C. **164.5 cm** D. 1645 cm
27. When a chemical reaction takes place, there is evidence of physical changes. Which of the following could be an example of a physical change?
A. Color change B. Bubbles C. Texture change D. **All of the above**
28. In this chemical reaction, $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$
Name one reactant: **HCl + NaOH**
Name one product: **NaCl + H₂O**
29. The part of the microscope where you place the slide is called the:
A. **Stage** B. Lamp C. Lens
30. Lugol's iodine is used to stain cells to make them look
A. Bigger B. Smaller C. **More visible**