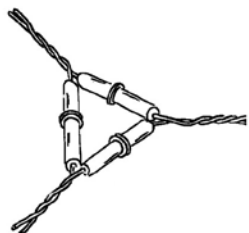


1. Which pieces of safety equipment will you find in our laboratory?
  - a. fire blanket
  - b. eye wash station
  - c. fire extinguisher
  - d. safety shower
  - e. all of the above
2. What material would you use to neutralize or clean up a small acid spill?
  - a. sodium bicarbonate (baking soda) solution
  - b. boric acid solution
  - c. glycerin
  - d. sodium thiosulfate solution
  - e. alcohol
3. What should you do if you are splashed with a chemical during the lab?
  - a. Flush with cold water at least 15 minutes.
  - b. Inform your instructor.
  - c. Wipe it off with a paper towel.
  - d. a and b
  - e. b and c
4. What must you do if you break glass in the lab?
  - a. Use brush and dustpan to sweep up glass.
  - b. Deposit broken glass into the broken glass receptacle.
  - c. Pick up the glass with your hands.
  - d. a and b
  - e. b and c
5. How do we dispose of chemical wastes in the laboratory?
  - a. Wash them down the sinks.
  - b. Throw them in the regular trash.
  - c. Place In the appropriately labeled waste container in the hoods or as instructed.
6. Which of the following is a rule to follow when handling reagents?
  - a. Never carry a reagent bottle to your desk.
  - b. Read label twice before taking any chemical.
  - c. When pouring liquids hold the palm of your hand over the label.
  - d. When weighing out solids, use the spatula provided and taped to the jar or bottle.
  - e. All of the above.
7. Which of the following should be avoided in the laboratory?
  - a. Wearing shorts.
  - b. Wearing sandals.
  - c. Wearing contacts.
  - d. Eating or drinking.
  - e. All of the above.

8. Which of the following activities should be followed in the laboratory?
- Being aware of what is going on around you.
  - Keeping your work area clean.
  - Tying back long hair.
  - Reading and understanding the experiment before you begin work.
  - All of the above.
9. Which of the following statements is true?
- Acid should always be added to water when diluting a concentrated acid.
  - Water should always be added to the acid when diluting a concentrated acid.
10. Which of the following statements is false?
- Hold the test tube with a wire test tube holder.
  - Hold the test tube at an angle.
  - Never point the open end of the test tube towards anyone.
  - Always smell fumes from the test tube by putting your nose over the open end.
  - None of the statements is false.
11. Which of the following statements about cleaning glassware is wrong?
- Clean each piece of glassware when you are done with it.
  - Use detergent, tap water, brush, and "elbow grease".
  - Rinse thoroughly three times with tap water, to get rid of detergent.
  - Rinse with deionized water from a wash bottle.
  - Rinse with deionized water from the faucet.
12. Which of the following statements is correct?
- Clean off your lab bench and working area at the end of the lab session.
  - Always keep the balance room clean.
  - Never throw chemical wastes down the sink or into the regular trash.
  - Always wash your hands when you leave the lab.
  - All are correct.
13. What is the name of the following piece of equipment?



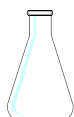
- Wire gauze
- Crucible tongs
- Test tube clamp
- Test tube rack
- Clay triangle

14. What is the name of the following piece of equipment?



- a. graduated cylinder
- b. beaker
- c. Erlenmeyer flask
- d. test tube
- e. porcelain crucible

15. What is the name of the following piece of equipment?



- a. graduated cylinder
- b. beaker
- c. Erlenmeyer flask
- d. test tube
- e. porcelain crucible

16. Which piece of equipment is this?



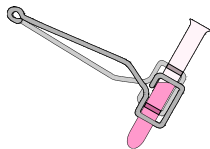
- a. graduated cylinder
- b. beaker
- c. Erlenmeyer flask
- d. test tube
- e. porcelain crucible

17. Which piece of equipment is this?



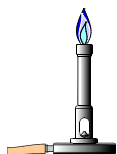
- a. graduated cylinder
- b. beaker
- c. Erlenmeyer flask
- d. test tube
- e. porcelain crucible

18. Which piece of equipment is this?



- a. test tube clamp
- b. beaker
- c. Erlenmeyer flask
- d. Bunsen burner
- e. crucible tongs

19. Which piece of equipment is this?



- a. test tube clamp
- b. beaker
- c. Erlenmeyer flask
- d. Bunsen burner
- e. crucible tongs

20. What is the name of the following piece of equipment?



- a. Wire gauze
- b. Crucible tongs
- c. Test tube clamp
- d. Test tube rack
- e. Clay triangle

21. Which of the following is a measured number?

- a. one dozen eggs
- b. the length of your lab book in cm
- c. number of inches per foot
- d. a and b
- e. a, b and c

22. How many significant figures are there in the following number? 103

- a. one
- b. two
- c. three
- d. infinite

23. How many significant figures are there in the following number? 1.035

- a. two                      b. three                      c. four                      d. infinite

24. Which of the following describes accuracy?  
a. When your answers are close to the "actual" value  
b. When your answers are grouped close together, but aren't close to the "actual" value  
c. When your answers aren't close together and aren't close to the "actual" value  
d. none
25. What does soluble mean?  
a. the substance decomposes in a liquid  
b. the substance turns color in a liquid  
c. the substance dissolves in a liquid  
d. none of the above
26. Why is water such a good solvent for ionic substances?  
a. ionic substances are polar and water is a nonpolar solvent  
b. ionic substances are polar and water is a polar solvent  
c. ionic substances are nonpolar and water is a nonpolar solvent  
d. ionic substances are nonpolar and water is a polar solvent
27.  $\text{H}_2\text{SO}_4$  (aq) + 2 NaOH (aq) =  $\text{Na}_2\text{SO}_4$  (aq) + ?  
a.  $\text{H}_2\text{O}$   
b. 2  $\text{H}_2\text{O}$   
c.  $\text{H}_2$   
d. 2  $\text{H}_2$
28. Which of the following shapes would describe the water molecule?  
a. Tetrahedral                      b. trigonal planar                      c. pyramidal  
d. bent or angular                      e. linear
29. What compound listed below has a linear shape?  
a. ammonia                      b. water                      c. carbon dioxide  
d.  $\text{CH}_4$                       e.  $\text{SO}_2$
30. What are the units for density?  
a. grams per mol                      b. grams per mL                      c. grams per ounce  
d. mL per gram                      e. mol per gram
31. Gas bubbles are less dense than water, so they rise to the surface - true or false?  
a. True                      b. False
32. Exothermic means a reaction  
a. gives off heat to its surroundings                      b. takes in heat from its surroundings
33. Litmus paper is red  
a. when there is acid present                      b. when there is base present

34. "Half-life" is the amount of time that it takes
- for one-half of the amount of a radioactive material to remain
  - for one-half of the animals exposed to get sick from radiation
  - for one-half of the distance that you can detect radiation from a source
  - for five percent of the amount of radioactive to remain
35. Organic functional groups usually contain more than one atom, and sometimes do not contain carbon.
- True
  - False
36. During the synthesis of aspirin, the reaction required the use of acetic anhydride.
- True
  - False
37. Carbohydrates which contain aldehyde groups will react with a positive Benedict's test or Tollen's test.
- True
  - False
38. Most animal fats contain more saturated than unsaturated fats.
- True
  - False
39. Corn syrup contains glucose in solution.
- True
  - False
40. Sucrose is a disaccharide.
- True
  - False