

Name: _____ Grade/Group: _____

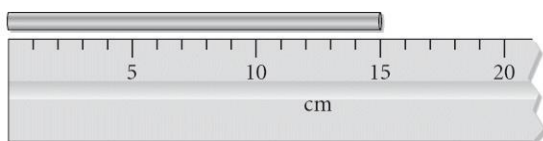
Subject: Chemistry-7 Teacher: Mrs. Raj

Date: _____

Test 2: Lab, Measurements, Matter and its Properties

Directions: Determine the best answer for each question. Circle your answer on this test packet and bubble your answer heavy and dark on the bubble sheet.

1. An example of a physical change is
 - a. Baking a cake
 - b. Reacting sodium with water
 - c. breaking a glass
 - d. burning wood
2. An example of a chemical change is
 - a. Burning paper
 - b. Mixing alcohol and water
 - c. dissolving sugar in tea
 - d. melting ice
3. The pure substances that cannot be broken down into any simpler substances are called
 - a. Compounds
 - b. Elements
 - c. molecules
 - d. bonds
4. Decanting is
 - a. A process in which the more volatile liquid is boiled off.
 - b. Dissolving a solid into a liquid.
 - c. Separating a solid from a liquid pouring of the liquid.
 - d. Heating a mixture two solids to fuse them together.
5. Read the length of the metal bar with the correct number of significant figures.



- a. 20 cm
 - b. 15 cm
 - c. 15.0 cm
 - d. 15.00 cm
6. Which of the following is a mixture?
 - a. Pure water
 - b. Calcium carbonate
 - c. Sugar water
 - d. Calcium
 7. Which of the following is a compound?
 - a. Oil and water
 - b. NaCl
 - c. H₂
 - d. Sodium

8. Which particle diagram represents one pure substance only?

a.		
b.		
c.		
d.		

9. Choose the property from the list that is **not** a physical property.

- | | |
|---------------|---------------|
| a. Solubility | c. density |
| b. Color | d. reactivity |

10. How many significant figures are in the value, 202.30 mL?

- | | |
|------|------|
| a. 3 | c. 5 |
| b. 4 | d. 0 |

11. How many significant figures are in the value, 0.0172 dg?

- | | |
|------|------|
| a. 3 | c. 5 |
| b. 4 | d. 0 |

12. Choose a physical change from the following

- | | |
|----------------------------|---------------------------|
| a. Synthesizing a compound | c. dissolving a substance |
| b. Burning | d. decomposing |

13. Boiling point, melting point, and density are some of an element's

- | | |
|---------------------------|------------------------|
| a. Nonreactive properties | c. chemical properties |
| b. Physical properties | d. pure properties |

14. If a spoonful of salt is mixed in a glass of water, what is the mixture called?

- a. Solute
- b. Solution
- c. solvent
- d. element

15. As part of the calibration of a new laboratory balance, a 1.000 g mass is weighed with the following results:

Trial	Mass
1	1.201 ± 0.001
2	1.202 ± 0.001
3	1.200 ± 0.001

The balance is :

- a. Both accurate and precise
- b. Accurate but imprecise
- c. Precise but inaccurate
- d. Both inaccurate and imprecise

16. An element is

- a. A mixture of atoms
- b. All one type of atom
- c. a compound
- d. a solution

17. A compound is

- a. A mixture of different atoms
- b. All one type of atom
- c. more than one atom chemically combined in a specific ratio
- d. a solution

18. How many significant figures are there in 0.0006728 m?

- a. 7
- b. 3
- c. 8
- d. 4

19. Which one of the following is a **chemical** property?

- a. Density = 5.43 g/cm^3
- b. Dissolves in water
- c. It is silvery white
- d. reacts violently with oxygen

20. Which of the following is a **physical** property?

- a. Dissolves in alcohol
- b. Is flammable
- c. rusts in water
- d. is a product of burning coal

21. The agreement of a particular value with the true value is called a(n)

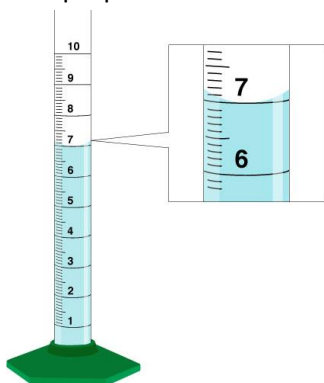
- a. Error
- b. Accuracy
- c. Precision
- d. Certainty

22. What safety items are required for lab?

- a. Long pants
- b. Closed-toe shoes
- c. Safety goggles
- d. All of the above

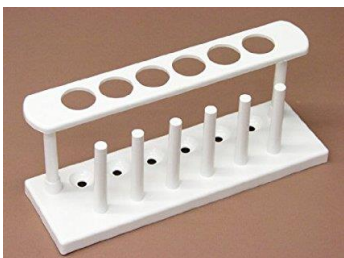
23. Which of the following is **not** considered characteristic of a chemical change?
- a. Gas formed
 - b. Light released
 - c. Heat released
 - d. Freezing
24. Which of the following must be true for a chemical change to have occurred?
- a. A volume change
 - b. A shape change
 - c. A state change
 - d. An identity change
25. Which of the following would be a physical change?
- a. Baking a cake
 - b. Melting ice
 - c. Burning a log
 - d. An explosion
26. The volume of a liquid in a graduated cylinder should always be measured from:
- a. The nearest line
 - b. The nearest even number
 - c. The top of the meniscus
 - d. The bottom of the meniscus
27. Which of the following is the measurement of the space an object occupies?
- a. Volume
 - b. Mass
 - c. Weight
 - d. Temperature
28. Which of the following is the measurement of hot and cold?
- a. Volume
 - b. Mass
 - c. Weight
 - d. Temperature
29. Hexane is combined with water in a test tube and two distinct layers form. This is an example of
- a. An element
 - b. A compound
 - c. A homogeneous mixture
 - d. A heterogeneous mixture
30. How will you separate salt from a salt water?
- a. Filtration
 - b. Evaporation
 - c. Decantation
 - d. Magnetic separation
31. "Wafting" is the proper technique for
- a. neutralizing a spilled acid
 - b. putting out burning clothing
 - c. washing chemicals from the eye
 - d. smelling a chemical substance
32. When can filtration technique be used?
- a. To separate oil and water
 - b. To crystallize salt
 - c. To separate solid from a liquid
 - d. To separate a mixture of colored dyes

33. Give a proper measurement for the liquid in the graduated cylinder below.



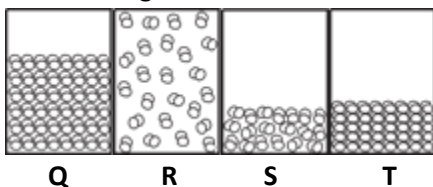
- a. 6.9 mL
- b. 6.90 mL
- c. 7.0 mL
- d. 7.00 mL

34. What is the name of the following piece of lab equipment?



- a. Drying rack
- b. Test tube
- c. Test tube rack
- d. Ring stand

35. Use the diagram below to answer the following question below



Each diagram shows the particles of a substance in a closed container. Which of these shows the substance that is most easily compressed?

- a. Q
- b. R
- c. S
- d. T

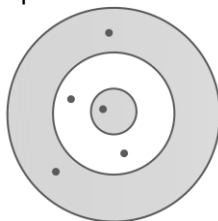
36. To separate iron filings from sand, you will use a _____.

- a. Funnel
- b. Filter paper
- c. Magnet
- d. Beaker

37. A student does a calculation using her calculator and the number 280.57163 is shown on the display. If there are actually three significant figures, how should she show the final answer?

- a. 280
- b. 280.
- c. 281
- d. 0.280

38. The marks on the following target represent someone who is:



- a. accurate, but not precise
- b. precise, but not accurate
- c. both accurate and precise
- d. neither accurate nor precise

39. All the following are characteristic properties of phosphorus. Which one is a chemical property?

- a. Both red phosphorus and white phosphorus exist in solid allotropic forms.
- b. The red form melts at about 600°C and the white form melts at 44°C.
- c. The white form is soluble in liquid carbon disulfide, but is insoluble in water.
- d. When exposed to air, white phosphorus will burn spontaneously, but red phosphorus will not.

40. A student is asked to measure 12 mL of a liquid as precisely as possible. Which piece of equipment should the student select for this task?

- a. 25 mL beaker
- b. 25 mL graduated cylinder
- c. 25 mL Erlenmeyer flask
- d. 25 mL volumetric flask