2.1.1 – 2.1.3 TEST Classification of Matter Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_ Pd:\_\_\_\_\_

Choose the best answer for each of the following, answer on the Scantron - Use No. 2 pencil

**2.1.1**



Answers may be used more than once or not at all.

1. element only c. mixture of elements
2. compound only d. mixture of compounds and elements
3. I = \_\_\_\_\_\_\_\_\_\_\_ **3)** III = \_\_\_\_\_\_\_\_\_\_\_
4. II = \_\_\_\_\_\_\_\_\_\_\_ **4)** IV = \_\_\_\_\_\_\_\_\_\_\_

**5) In a solution the substance that is being dissolved is called the\_\_\_\_\_\_\_\_\_\_\_\_\_**

 a. solvent c. solute

 b. emulsifier d. filtrate

**6. What is one property of a suspension that is different from that of a solution or a colloid?**

 a.If left to rest, the particles of a suspension will settle out.

 b. A suspension is always clear

 c. Suspensions are colorless

 d. If left to rest, the particles of a suspension will not settle out.

7. **A** **solution that cannot hold any more solute at room temperature is \_\_\_**

 a. A weak solution c. A concentrated solution

 b. A saturated solution d. An unsaturated solution

**8. An example of a solution is \_\_\_**

a. Sugar and water c. Milk
b. Sand and water d. Whipped Cream

**9. What makes water such a good solvent?**

 a.Water is a good solvent because it is a negatively charged ion.

 b. Water is such a good solvent because it repels most molecules

 c. Water is such a good solvent because it is such a small molecule
 d. Water is a good solvent due to its polarity

**10. The property of a colloid to scatter light is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

a. dispersion c. Tyndall Effect
b. dissolving d. Mercalli Scale

Identify the following as a (an)…..

1. element c. homogeneous mixture of elements
2. compound d. heterogeneous mixture

**11. sodium nitrate**

**12. silver**

**13. granite**

**14. sugar water**

**15. neon gas**

**16. salt**

**2.1.2**

Choose the letter or letters that correctly identify the following:

1. definite composition c. retains its shape
2. takes shape of the container d. is compressible

**17. Gas \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**18. Liquid \_\_\_\_\_\_\_\_\_\_\_\_\_**

**19. Solid \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Use the following diagrams to identify the state of matter.



A B C

LIQUID

LIQUID

LIQUID

**20. Gas \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**21. Liquid \_\_\_\_\_\_\_\_\_\_\_\_**

**22. Solid \_\_\_\_\_\_\_\_\_\_\_\_\_\_**



Choose the letter or letters that correctly identify the following:

**23. Liquids are present in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**24. Freezing point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**25. Condensation point \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**26. Only one state of matter is present \_\_\_\_\_\_\_\_\_\_**

**27. Increasing thermal energy will increase the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the object and cause the atoms to** \_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

 a. potential energy, expand c. potential energy, contract

 b. kinetic energy, expand d. kinetic energy, contract

**2.1.3**

Use the correct answer choice to identify the correct property or change.

Answers may be used more than once or not at all.

a. physical property b. chemical property c. physical change d. chemical change

**28. mixing sand and salt**

**29. rusting an iron nail**

**30. density = 6.3 g/cm3**

**31. cooking an egg**

**32. flammable**

33. \_\_\_\_**Several common metals are listed in this chart. Assuming equal masses of each, a cube of which metal would have the *least* volume**

**Common Metals**

|  |  |
| --- | --- |
| Metal | Density (g/cm3 ) |
| Aluminum | 2.7 |
| Iron | 7.9 |
| Silver | 10.5 |
| Lead | 11.4 |

1. aluminum b. iron c. silver d. lead

**34. The chart below represents the melting and boiling points of several materials.**

 **Which is a gas at 50○C?**

|  |  |  |
| --- | --- | --- |
| Substance | Melting Point (○C) | Boiling Point (○C) |
| A | -119 | 79 |
| B | -95 | 65 |
| C | -82 | 37 |
| D | -94 | 64 |

Use the Solubility Curve Chart to answer the following:



 **35. What mass of KNO3 solute will dissolve in 100mL of water at 70○C ?**

1. 73g b. 132g c. 49g d. cannot be determined

**36. John has a solution that contains 50g of NH4Cl at 50°C (in 100 mL H2O). The solution would be classified as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**

 a. saturated b. unsaturated c. supersaturated

**37. Which substance has the least change of solubility from 0○C to 100○C ?**

1. NaCl b. KI c. NH4Cl d. NH 3

**38. Which substance is classified as a gas?**

1. NaCl b. KI c. NH4Cl d. NH 3

**39. Jorgia has a solution that contains 80g of NaNO3 at 10°C (in 100 mL H2O). If the solution is heated to 50°C , how much more solute could dissolve?**

 a. 25 g b 35g c. 45g d. no more solute could be dissolved