

Test Unit 9-Chemical Analysis  
Chromatography & Poison Lab

Name: \_\_\_\_\_ # \_\_\_\_\_

Date: \_\_\_\_\_ Block: \_\_\_\_\_

Matching: [2 pts each]

- |                         |   |
|-------------------------|---|
| 1. ___ Centrate         | a. hydrochloric acid  |
| 2. ___ Precipitate      | b. substance used to dissolve samples during chromatography   |
| 3. ___ HCl              | c. indicates a substance is dissolved in water  |
| 4. ___ HNO <sub>3</sub> | d. in a reaction which produces a solid and liquid, this is the liquid portion  |
| 5. ___ NH <sub>3</sub>  | e. in a reaction which produces a solid and liquid, this is the solid portion   |
| 6. ___ Visualize        | f. ammonia  |
| 7. ___ Solvent          | g. a machine which uses centrifugal force to separate a precipitate and a centrate  |
| 8. ___ Ethanol & Water  | h. a calculated quantity that denotes the strength of a solution; most often the strength of an acid or base between 0 and 12 |
| 9. ___ Aqueous          | i. the two most common solvents   |
| 10. ___ Molarity        | j. nitric acid  |
| 11. ___ Centrifuge      | k. the process performed on chromatography to develop invisible components of samples   |

12. What does TLC stand for?

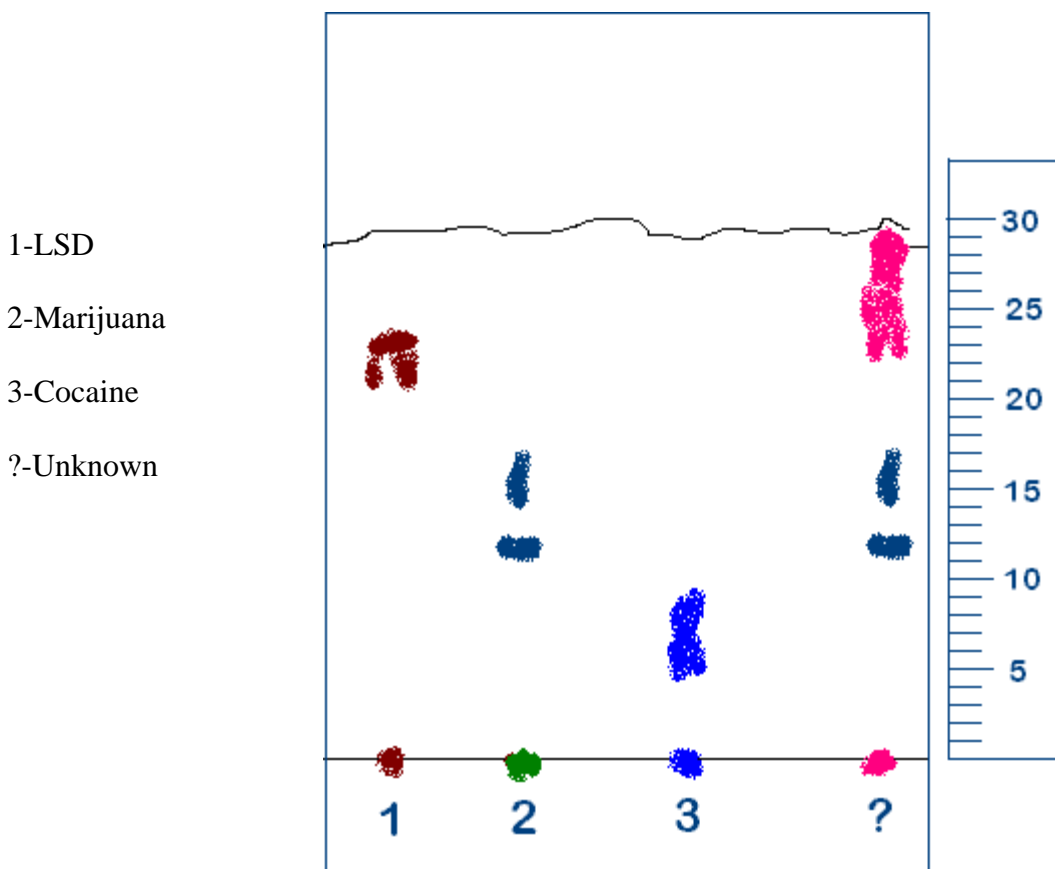
\_\_\_\_\_

13. List the four methods for visualizing chromatography.

\_\_\_\_\_

\_\_\_\_\_

14. Calculate  $R_f$  values for the unknown and predict what drug is present in the unknown. [10 pts]



Unknown  $R_f$  values: \_\_\_\_\_

Drug present in unknown: \_\_\_\_\_

15. Why is there an unidentified component in the unknown? What could this component be? [3 pts]

[4 pts each]

3

16. Explain who to give a sample a hot water bath.
17. Explain how to use litmus paper to discover if a solution is basic.
18. Explain how to use litmus paper to discover if a solution is acidic.
19. What is the primary use of lead? How does this contribute to lead poisoning?
20. Describe the nature of mercury in a persons body. (How can it get in the body? How can it be removed from the body?. . .)
21. Name two common substances that contain arsenic.
22. What smell is associated with cyanide poisoning during an autopsy?

Fill in each  with the missing components.  
[3 pts each]

### Poison Flow Chart

(Simulation)

