

**Forensic Science Unit 2A Exam: Physical Evidence (Glass, Soil & Sand)**

**Part 1: Knowledge and Comprehension**

Carefully read the questions that follow and all the possible answer selections before choosing the most correct answer to place on your answer sheet. You may elect to leave 2 questions blank. (2 points each)

1. A piece of glass is immersed in a liquid. It proceeds to float on the liquid's surface. This shows that the density of the glass is \_\_\_\_ the density of the liquid.
  - a. more than
  - b. less than
  - c. equal to
  - d. none of the above are correct
  
2. The larger opening of a crater-shaped hole in glass made by the penetration of a projectile indicates \_\_\_\_.
  - a. the exit side of the glass
  - b. the entrance side of the glass
  - c. that a bullet made the opening
  - d. that the projectile was traveling at a low velocity
  - e. none of the above
  
3. Which is a true statement about the fracturing of glass?
  - a. radial cracks appear first, starting on the side opposite from the force
  - b. concentric fractures form first, starting on the opposite side from the force
  - c. radial cracks form afterward, starting on the same side as the force
  - d. concentric fractures form first, on the same side as the force
  
4. What is the logical first step in soil analysis?
  - a. examination for presence of debris under low-power magnification
  - b. examination of minerals and rocks under high-power magnification
  - c. comparison of dried soil sample for color and texture
  - d. use of the density-gradient tube technique
  
5. Which has more probative value?
  - a. a piece of soda lime glass that is colored purple
  - b. a piece of soda lead glass that is colored purple
  - c. a piece of windshield glass from an imported vehicle
  - d. they all have the same level of probative value
  
6. Bubbling in the presence of an acid is most likely associated with which type of sand?
  - a. carbonate
  - b. ocean
  - c. continental
  - d. tufa