

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