FORENSIC TOXICOLOGY: **QUESTIONS** name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

01: INTRODUCTION to FORENSIC TOXICOLOGY

1. How would you characterize the poisoner of the Carr family?

02: FORENSIC TOXICOLOGY

1. What is the main difference between Toxicology and Forensic Toxicology?
2. Provide a scenario of an accidental death by poison. What about an intentional death.
3. What are several substances that can certainly kill a person, but might not initially be thought of as poisons?
4. What, specifically within a body, is a forensic toxicologist examining in a person?
5. Why can it be challenging to determine which poison is present in a body? Give a couple of reasons.

03: THE HISTORY of FORENSIC TOXICOLOGY

1. Give 1 significant historical discovery in Forensic Toxicology.
2. Give two reasons why, even today, some readily detectable poisons still go undetected.

04: TYPES of POISONS

1. What are three characteristics (there are 5 mentioned) of a “good” poison?
2. What does it tell examiners if the highest concentrations of poison were found in the lungs of the victim? What about in the stomach or small intestine?
3. Why was **Arsenic** once considered an excellent poison? Why not so much today?
4. What are some symptoms of Arsenic poisoning?
5. What do **Cyanide** salts typically smell and/or taste like?
6. What process in the body does **Cyanide** stop very quickly?
7. Where does **Strychnine** come from? How does it kill you?
8. **Carbon monoxide** (CO) is the leading cause of both accidental and intentional poisoning in the United States. Why?
9. What does **carbon monoxide** do to the blood on a molecular level, and what does it do to the color of the blood?
10. **Ricin** comes from beans, and is usually made into a powder. How might his powder be delivered as a poison?
11. What symptoms present in a victim of inhaled **ricin**? What about **ricin** that was injested?

05: DETERMINING a POISON

1. What is one reason that handling samples of tissue, organ or other bodily material post-mortem can be challenging?
2. Why is it best to take a sample of **blood** away from the heart in post-mortem toxicology?
3. What is the general function of the **liver and kidne**ys that make them likely locations for toxic substances to be found? Why might the **lungs** be a good location to search for a poison in a post-mortem examination?
4. What might be found by examining the **gastric contents?**
5. Why might a medical examiner be interested in examining a victim’s **hair**?
6. What toxins tend to accumulate in the **bones**?
7. Explain briefly how **chromatography** could be used to detect a cyanide poisoning?
8. What do hemoglobin proteins do in the human body, and how do these proteins interact with carbon monoxide?
9. What is percent saturation, and what does a “high” percent saturation indicate?
10. What does the **Marsh Test** detect?
11. What does the **Reinsch Test** detect?