Forensic Science Final Exam Review

1. What is an observation and how does it differ from an inference?
2. What factors may influence an eyewitness?
3. How reliable is eyewitness testimony?
4. Define forensic science.
5. Summarize Locard’s exchange principle.
6. Distinguish between direct and circumstantial evidence.
7. Describe how evidence at a crime scene is secured, documented, collected and stored.
8. Identify the parts of a hair and describe the variations in each layer.
9. Explain how you can distinguish between human and nonhuman (animal) hair.
10. Explain how hair evidence can be used in an investigation.
11. Describe principal characteristics of common fibers and the tests used to identify

 them.

1. Distinguish between natural and synthetic fibers and classify some of each.
2. Describe the characteristics of fingerprints
3. Identify the basic types of fingerprints.
4. Explain how fingerprint evidence is collected to include different materials.
5. List some characteristics of glass that distinguishes the different types.
6. Explain how refractive index can be used to identify glass.
7. Analyze fracture patterns to determine how glass was broken.
8. Recognize various soil types and describe some methods for examining soil samples.
9. Distinguish sand samples by size, color and composition.
10. Explain how soil and sand form.
11. Describe 12 types of handwriting exemplars that can be analyzed in a document.
12. Distinguish between the terms forgery and fraudulence.
13. Describe four features of paper currency that are used to detect counterfeit bills.
14. Identify the five types of controlled substances.
15. Describe the role of various types of toxins in causing death.
16. Discuss agents that may be used in bioterrorism.
17. Explain how crime-scene evidence is collected and processed for DNA evidence.
18. Explain how DNA evidence is compared for matching including both inheritance and

 criminal matches.

1. Explain the composition and function of blood cells.
2. Describe how to determine the blood type of a sample of blood.
3. Explain how to determine area of convergence.
4. Calculate point of origin of a blood drop.
5. Distinguish between a bullet and a cartridge.
6. What is rifling and how does it affect projectile flight?
7. Explain how bullets are test-fired and matched.
8. Explain the relationship between barrel size and caliber.
9. Determine the position of a shooter based on bullet trajectory.
10. Compare and contrast oxidation and combustion.
11. What are the three requirements to start and sustain a fire?
12. What is the difference between a high explosive and a low explosive?
13. What is the difference between primary and secondary explosives?
14. What is the most common container for collecting fire evidence and at what locations

 should it be collected?

1. Distinguish between the five manners of death.
2. Distinguish between cause, manner, and mechanisms of death.
3. Explain how the development of algor, rigor, and livor mortis occur after death.
4. Use evidence from stomach contents to determine time of death.
5. Explain how insect evidence can be used to determine time of death.
6. Explain how environmental factors influence the estimated time of death.
7. Describe how bone is formed.
8. Distinguish between male and female skeletal remains based on skull, jaw, brow ridge,

 pelvis and femur.

1. Describe how bones contain a record of injuries and disease.
2. Describe how a person’s approximate age could be determined by examining his or her

 bones.

1. Explain the differences in facial structure among different races.
2. Describe the role of mitochondrial DNA in bone identification.