

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

## **Forensic Science Final Exam Study Guide**

### **Chapter 1 History of Forensics**

1. What is the definition of forensic science?
2. What is an infraction? What would some examples of an infraction be?
3. What is a misdemeanor? What would be some examples of a misdemeanor?
4. What is a felony? What would be some examples of a felony?
5. What does it mean if something has probative value?
6. What is entymology the study of?
7. What is a polygraph?
8. What is serology the study of?
9. What would a toolmarks department study?
10. What is odontology the study of?
11. What is pathology?
12. What would an arson specialist study?

### **Chapter 2/3 Evidence & Crime Scenes**

13. What is the specific definition of a crime scene?
14. What is circumstantial evidence?
15. What is Physical evidence?

16. What is questioned evidence?
17. What is testimonial evidence?
18. What are the major differences between physical and testimonial evidence? Which one is more reliable?
19. What was the significance of the Ronald Cotton Case?
20. What are the major differences between class and individual evidence? Give examples of both.
21. Describe how one piece of evidence could show class and individual characteristics.
22. Which of the following governmental agencies maintain their own crime lab?
23. What is hearsay evidence?
24. What is a control and how is it used in Forensics?

#### **Chapter 4 Fingerprints**

25. What are the biological properties that make up fingerprints? What is the major component?
26. What is another term for a ridge characteristic?
27. Describe the three categories fingerprints and any subcategories for each. Be able to identify the type based on a given picture of a fingerprint.
  - a. **Loop-**
  - b. **Whorl-**
  - c. **Arch-**
28. What are the different types of whorls?

- 29. Describe/draw the following minutiae points: eye, island/short ridge, ridge ending, hook, triple fork.
- 30. What substance is found in superglue that reacts with and visualizes a fingerprint?
- 31. What single factor determines how a print is developed?

**Chapter 5/6 Hair and Fibers**

- 32. What are the three major components of hair?
- 33. What are the different types of medullas? Be able to identify the different types based on a given picture.
- 34. What are the 3 different types of scale patterns discussed in class? What organism do each of these types come from?
- 35. What are the 2 categories of fibers? Where do they come from?

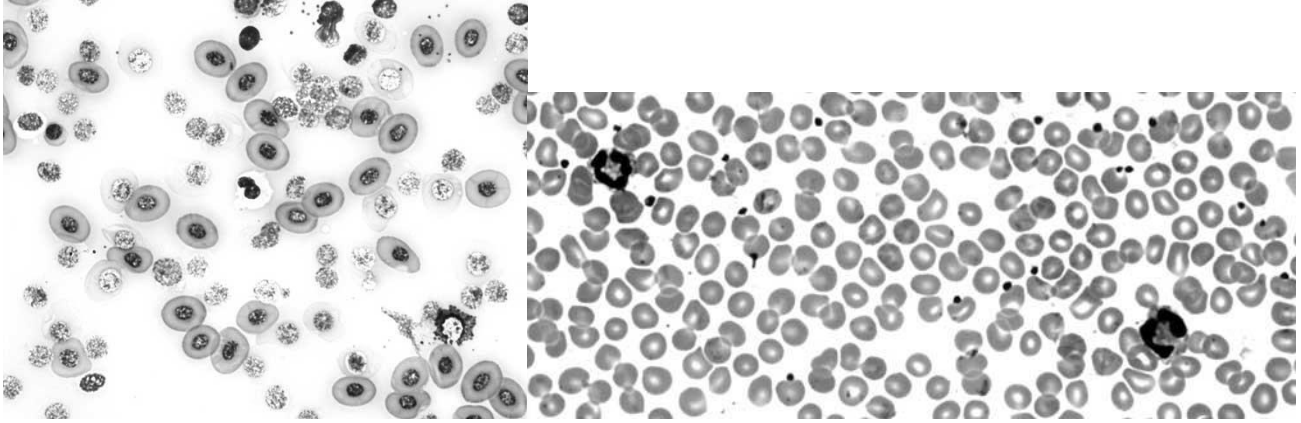
**Chapter 11 Blood**

- 36. Complete the following chart to study the different blood types, antigens present, antibodies produced, possible donations to other blood types, and possible blood types to be received.

<b><u>Donor Type</u></b>	<b>Can Donate To</b>	<b>Can Receive From</b>	<b>Antigen(s) Present</b>	<b>Antibody Present</b>
<b>A</b>				
<b>B</b>				
<b>AB</b>				
<b>O</b>				

- 37. What happens if the blood groups are mixed?
- 38. What is an antigen? What is an antibody?
- 39. What blood type is the universal acceptor? Universal donor?

40. If given a picture of a blood stain, be able to identify the direction and angle at which the blood droplet made contact with the surface.
- Impact angle = inverse sin (W/L). Directionality is determined by blood stain tails.**
41. Label the two diagrams below as frog blood or human blood.
42. Be able to label red blood cells, white blood cells, and platelets on the diagram on the right.



### Chapter 12 DNA

43. Describe the structure of a DNA molecule. State the chemical components of DNA.
44. What can DNA be used for in forensic science?
45. What is PCR used to do?

### Chapter 14 Human Remains

46. Know what bones are used to determine: 1)Age 2)Height 3)Race 4)Gender
- Age =**
  - Height =**
  - Race =**
  - Gender =**
47. What is Anthropology the study of?
48. What are the 3 factors involved in how much the body cools after death?
- a.**
  - b.**
  - c.**

49. What is rigor mortis?

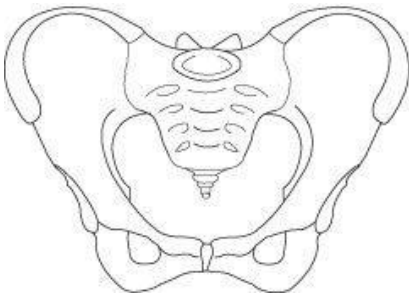
50. What is algor mortis?

51. What do sutures help determine?

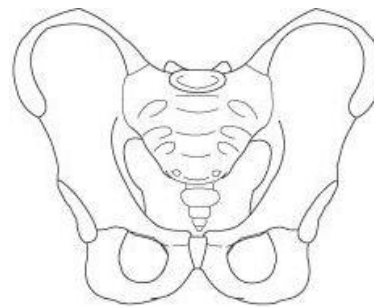
52. How does the angle of the pubic arch determine between a male and female pelvis?

53. Which pelvis below is male, which one is female?

a.



b.

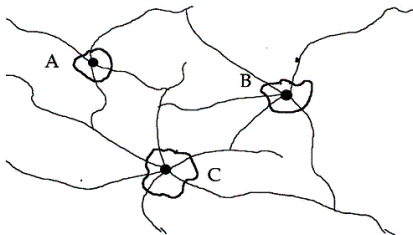


54. What research is done at the Body Farm?

### Chapter 10 Glass & Soil

55. The size of a hole in glass tells a person what regarding the projectile that made it?

56. In which order did these bullet holes occur?



57. What is Geology the study of?

58. Which crime unit would analyze soil?

59. What is the forensic definition of soil?

60. What is a topographic map?

61. What are the 3 factors that influence soil composition?

a.

b.

c.

### **Chapter 16 Questioned Documents**

62. What is chromatography?

63. What is an exemplar?

64. Placement of diacritics is examining what?

65. What two ways can a person disguise their handwriting?

a.

b.

66. How is a blind forgery made?

67. Be able to pick out a matching sample of someone's handwriting when given an exemplar.