**Hair, Fibers and Fingerprint Review**

1. What remains the hair’s most characteristic forensic feature?

2. Describe the 3 parts of hair?

a.

b.

c.

3. The cortex contains granules. What are these granules and what do they determine?

4. What does the medullary index measure? What is one difference between the medullae of human and animal hairs?

5. Name, describe, and sketch the five human medulla patterns.

6. What are the three primary cuticle patterns? Which one is found on human hair?

7. What is the main purpose for examining a hair found at the crime scene?

8. Can you distinguish a hair that has been bleached or dyed from a natural hair? How or why not?

9. Can the following be determined? Why or why not? If so, how?

a. Body area of a hair.

b. Racial origin of a hair.

c. Age and sex of a hair.

10. Is it possible to determine if a body hair so was forcibly removed from the body? Why or why not? If so, how?

11. DNA can be extracted from hair so why is hair found at a crime scene not normally used for DNA typing?

12. Name the three phases of hair growth. A criminalist is more likely to collect DNA from hairs in which stage of growth? Why?

13. What is a standard/reference hair? Why must questioned hairs and standard/reference hairs being compared come from the same area of the body? How many standard reference hairs are taken from a person’s head?

14. Can you distinguish between natural and synthetic fibers? If so, how?

15. What is the difference between a natural fiber and a synthetic fiber?

16. What are some tests used to identify fibers? What are the pros and cons of each test?

17. Name two physical characteristics that frequently are used to identify fibers.

18. What is the first fundamental principle of fingerprints?

19. What are ridge characteristics? What is another name for ridge characteristics?

20. What is the second fundamental principle of fingerprints?

21. What are dermal papillae and how are they related to fingerprints?

22. When are fingerprints formed?

23. Why is it pointless to try to obscure or obliterate one’s fingerprints by scarring or otherwise damaging the skin?

24. What it the third fundamental principle of fingerprints?

25. What are the three types of fingerprint patterns? Which is most common?

a. Which class of fingerprints includes ridge patterns that are generally rounded or circular and have two deltas?

b. Which type of fingerprint must have at least one delta?

26. Describe the three kinds of crime scene fingerprints.

27. Name four common chemical methods for visualizing latent fingerprints.

28. Explain how a ridge count is made. Which fingerprints would have 2 ridge counts? Which fingerprints would not have a ridge count?

29. Identify the class of fingerprint then identify the details marked. Complete a ridge count.

30. Identify the class of fingerprint then circle - 4 ridge endings, 2 islands, 1 dot, 2 bifurcations and do a ridge count (make sure the circles and line show).

