

Advanced Forensic Science History and Methodology

Forensic Science · Answer Key · 18 Questions

1. In what year did Edmond Locard establish the first police crime laboratory in Lyon, France?

- A) 1908
- B) 1910**
- C) 1912
- D) 1914

2. How many points of comparison for fingerprint identification were historically mandated by the 'Rule of Twelve' before it was largely abandoned?

- A) 8
- B) 10
- C) 12**
- D) 16

3. The 'Frye Standard,' which dictates the admissibility of scientific evidence, originated from a US court case decided in which year?

- A) 1923**
- B) 1933
- C) 1943
- D) 1953

4. Leone Lattes developed a method for determining the blood group of dried bloodstains in which year?

- A) 1912
- B) 1915**
- C) 1918
- D) 1921

5. What is the minimum number of core characteristics generally required to individualize a tool mark?

- A) No fixed minimum**
- B) 3
- C) 5
- D) 10

6. In the 1993 Daubert v. Merrell Dow Pharmaceuticals case, the Supreme Court assigned the 'gatekeeping' role for expert testimony to whom?

- A) The Jury
- B) The Defendant
- C) The Trial Judge**
- D) The Prosecuting Attorney

7. Calvin Goddard was instrumental in refining the comparison microscope for firearms analysis in what decade?

- A) 1910s
- B) 1920s**
- C) 1930s
- D) 1940s

8. What is the specific wavelength range (in nanometers) typically used in forensic alternative light sources to visualize biological fluids?

- A) 100-200nm
- B) 300-500nm**
- C) 600-800nm
- D) 900-1100nm

9. The first application of DNA profiling in a criminal case occurred in 1986 involving the investigation of which biologist?

- A) Alec Jeffreys**
- B) Francis Crick
- C) James Watson
- D) Rosalind Franklin

10. What is the standard magnification range used in a comparison microscope for bullet striation analysis?

- A) 5x to 20x
- B) 20x to 100x**
- C) 200x to 500x
- D) 1000x to 2000x

11. Orfila, often called the 'father of toxicology,' published his treatise on poisons in what year?

- A) 1804
- B) 1814**
- C) 1824
- D) 1834

12. In dental forensics, how many permanent teeth are typically present in a full adult human dentition?

- A) 28
- B) 30
- C) 32**
- D) 34

13. What is the approximate percentage of the human genome that is considered non-coding 'junk' DNA, historically useful for STR profiling?

- A) 45%
- B) 75%
- C) 98%**
- D) 99.9%

14. The Bertillon system of anthropometry relied on the measurement of how many specific body parts?

- A) 5
- B) 7
- C) 9
- D) 11**

15. At what temperature (in Celsius) is most standard forensic evidence preserved to prevent biological degradation?

- A) -80°C
- B) 0°C
- C) 4°C**
- D) 20°C

16. Henry Faulds published an article in 'Nature' regarding the potential of fingerprinting in what year?

- A) 1870
- B) 1880**
- C) 1890
- D) 1900

17. How many individual loci are required by the CODIS (Combined DNA Index System) core standards for federal database entry?

- A) 5
- B) 10
- C) 13
- D) 20**

18. Hans Gross published the seminal work 'Handbuch für Untersuchungsrichter' (Criminal Investigation) in which year?

A) 1883

B) 1893

C) 1903

D) 1913