

## Chapter 01: The Evolution of Criminal Investigation and Forensic Science

### Multiple Choice Questions

1. The first modern detective force was
- A) the Bow Street Runners.
  - B) established by the Metropolitan Police Act of 1829.
  - C) created by Patrick Colquhoun.
  - D) headed by attorney Howard Vincent.

**Ans: A**

**Page ref: 3**

2. When the London Metropolitan Police force was established in 1829, the British public was at first suspicious and at times even hostile towards it because
- A) King Edward II had supported its creation.
  - B) Rowan and Mayne had intimate ties to the royal family.
  - C) social reformers such as Jeremy Bentham had long argued that it was a danger to personal liberty.
  - D) French citizens had experienced oppression under centralized police.

**Ans: D**

**Page ref: 3**

3. In 1833, \_\_\_\_\_ an ordinance creating America's first paid, daylight police force?
- A) Philadelphia
  - B) Chicago
  - C) New York City
  - D) Baltimore

**Ans: A**

**Page ref: 3-4**

4. After the Civil War, Pinkerton's National Detective Agency engaged in the two broad areas of \_\_\_\_\_?
- A) Locating war criminals and providing protection to the President of the United States.
  - B) Controlling a discontented working class and protection of the President of the United States.
  - C) Pursuing bank robbers and arresting train robbers.
  - D) Controlling a discontented working class and pursuing bank and railroad robbers.

**Ans: D**

**Page ref: 4**

5. Which state and city was the first to create a unified police force in this country?
- A) New Orleans, LA.
  - B) New York, NY.
  - C) Baltimore, MD.
  - D) Philadelphia, PA

**Ans: B**

**Page ref: 4**

6. Which of the following is not one of the reasons cited in the textbook for having reliable detectives in America in the 1800's?

- A) Graft and corruption were common among America's big city police officers.
- B) Police jurisdictions were limited.
- C) There was little information sharing among police departments.
- D) All of the above are reasons cited in the textbook.

**Ans: D**

**Page ref: 4**

7. A rogues' gallery is

- A) only practical in cities of 100,000 population or more.
- B) photographs of known criminals arranged by criminal specialty and height.
- C) a line-up of known offenders for viewing by detectives so they can recognize the criminals later on the street.
- D) only practical in cities of 100,000 population or more and are photographs of known criminals arranged by criminal specialty and physical height.

**Ans: B**

**Page ref: 6**

8. What was the original mission of the Secret Service when created by Congress in 1865?

- A) Combat counterfeiting.
- B) Provide protection for Presidents.
- C) Prevent drug importation into this country.
- D) All of the preceding was addressed in the Secret Service's original Charter.

**Ans: A**

**Page ref: 6**

9. What municipal agency was the first to establish a Criminal Identification Bureau?

- A) Chicago, Ill.
- B) Atlanta, GA.
- C) Philadelphia, PA.
- D) New Orleans, LA.

**Ans: A**

**Page ref: 6**

10. Which agency was the prototype for modern state police organizations?

- A) New York State Police.
- B) Georgia State Police.
- C) Pennsylvania State Police.
- D) Pinkerton International Detective Agency.

**Ans: C**

**Page ref: 611.**

11. The Harrison Act of 1914 made the distribution of nonmedical drugs a crime. The agency **currently** charged with enforcing its provisions is \_\_\_\_\_.

- A) Federal Bureau of Investigations
- B) Narcotics Bureau
- C) Drug Enforcement Agency
- D) Bureau of Narcotics and Dangerous Drugs

**Ans: C**

**Page ref: 8**

12. During 1961-1966, the U.S. Supreme Court became unusually active in hearing cases involving the rights of criminal suspects and defendants. This is referred to as the \_\_\_\_\_

- A) radical court era.
- B) conservative court era.
- C) due process revolution.
- D) ex-post facto period.

**Ans: C**

**Page ref: 8-9**

13. The first major book describing the application of scientific disciplines to criminal investigation was written in 1893 by Hans Gross. Translated into English in 1906, it remains highly respected today as a seminal work in the field. What is the book's title?

- A) *Criminal Investigation*.
- B) *The Scientific Method of Criminal Inquiry*.
- C) *Science and Criminal Conduct*.
- D) *Forensic Science and Crime*.

**Ans: A**

**Page ref: 9**

14. What early method of criminal identification is based on the fact that every human being differs from every other one in the exact measurements of their body, and that the sum of these measurements yields a characteristic formula for each individual?

- A) Dactylography.
- B) Ectomorphism.
- C) Anthropometry.
- D) Meso-morphism.

**Ans: C**

**Page ref: 9**

15. The father of criminal identification is:

- A) Hans Gross.
- B) Alfonse Bertillon.
- C) Edward Henry.
- D) William Herschel.

**Ans: B**

**Page ref: 9**

16. The first country to use fingerprints as a system of criminal identification was:

- A) Germany.

- B) France.
- C) China.
- D) England.

**Ans: D**

**Page ref: 11**

17. Which 1903 case was the most important incident to advance the use of fingerprints in America?

- A) Lindberg kidnapping.
- B) "James Jones."
- C) West.
- D) Faurot.

**Ans: C**

**Page ref: 11-12**

18. In 1985, research by \_\_\_\_\_ and his colleagues at Leicester University, England led to the discovery that portions of the DNA structure of certain genes are as unique to individuals, as are fingerprints.

- A) Watson
- B) Ashworth
- C) Crick
- D) Jeffreys

**Ans: D**

**Page ref: 12**

19. What is the significance of the *Enderby* Cases that are referred to in the textbook?

- A) It proved without a doubt that DNA results were unreliable in court.
- B) The first use of DNA to exonerate a person convicted of the rape of two persons.
- C) The first use of DNA typing in a criminal trial.
- D) Both B and C.

**Ans: C**

**Page ref: 13**

20. The Palo Verde case is significant because it \_\_\_\_\_

- A) excluded evidence due to improper police training.
- B) was the first use of plant DNA in a criminal case.
- C) established the scientific basis for dactylography.
- D) confirmed Gravelle's Principal.

**Ans: B**

**Page ref: 14**

21. \_\_\_\_\_ is considered most responsible for raising firearms identification to a science and for perfecting the bullet comparison microscope?

- A) Paul Jeserich.
- B) Henri Lacassagne.
- C) Henry Balthazard.

D) Calvin Goddard.

**Ans: D**

**Page ref: 14**

22. Who made the first successful attempt to identify a murderer from the bullet recovered from the body of a victim?

A) Paul Jeserich.

B) Henri Lacassagne.

C) Henry Balthazard.

D) Henry Goddard.

**Ans: D**

**Page ref: 14**

23. The impact of Supreme Court decisions in criminal investigation cases and the adaptation to them by the police has

A) slowed police professionalization.

B) hastened police professionalization.

C) had no effect on the police.

D) handcuffed the police.

**Ans: B**

**Page ref: 9**

24. Which of the following is not one of the three major scientific systems for personal identification of criminals in wide use?

A) Anthropometry.

B) Dactylography.

C) Ectomorphism.

D) Deoxyribonucleic acid.

**Ans: C**

**Page ref: 9**

25. In 1892, who published the first definitive book on dactylography, *Finger Prints*?

A) Sir Francis Galton.

B) Henri Lacassagne.

C) Henry Balthazard.

D) Calvin Goddard.

**Ans: A**

**Page ref: 11**

**True/False Questions**

26. Criminalistics draws from diverse disciplines, such as geology, physics, chemistry, biology, and mathematics, to study physical evidence related to crime.

**Ans: True**

**Page ref: 9**

27. The Metropolitan Police act was enacted in 1829, the first time it was introduced in

England's Parliament.

**Ans:** False

**Page ref:** 3

28. Pinkerton's National Detective Agency's trademark was an open eye above the slogan "We are ever Vigilant."

**Ans:** False

**Page ref:** 4

29. After Prohibition was adopted nationally in 1920, the Bureau of Internal Revenue was responsible for its enforcement.

**Ans:** True

**Page ref:** 7

30. When Prohibition was repealed by the 18<sup>th</sup> Amendment to the U.S. Constitution in 1933, many former bootleggers turned to bank robbery and kidnapping. It then became the FBI's role to deal with the criminals.

**Ans:** True

**Page ref:** 7

31. The Bureau of Narcotics and Dangerous Drugs was an offshoot organization from the Drug Enforcement Administration that was formed to handle national terroristic drug use.

**Ans:** False

**Page ref:** 8

32. Bertillon produced the *portrait parle* or "speaking picture," which combines full-face and profile photographs of each criminal with his or her exact body measurements and other descriptive data onto a single card.

**Ans:** True

**Page ref:** 10

33. Without exception, every person has distinctive DNA. In every cell of the same human that contains DNA, this blueprint is identical, whether the material is blood, tissue, spermatozoa, bone marrow, tooth pulp, or a hair root cell.

**Ans:** False

**Page ref:** 13

34. The Orlando Cases set the stage for the first use of DNA typing in the United States.

**Ans:** True

**Page ref:** 13

36. In 1913, Professor Balthazard published an article on firearms identification in which he noted that the firing pin, extractor, and ejector all leave marks on cartridges, and that they vary among weapons.

**Ans:** True

**Page ref:** 14

## Fill-in-the-Blank Questions

36. \_\_\_\_\_ efforts led to the establishment of the London Metropolitan Police in 1829. English police officers are still affectionately referred to as “bobbies,” a play on his first name.

**Ans:** Sir Robert Peel’s

**Page ref:** 3

37. Stephen Girard bequeathed \$33,190 to \_\_\_\_\_ to develop a competent police force.

**Ans:** Philadelphia

**Page ref:** 3-4

38. The major private detective agency of the 19<sup>th</sup> century was formed by \_\_\_\_\_.

**Ans:** Alan Pinkerton

**Page ref:** 4

39. To supplement the rogues’ gallery, Thomas Byrnes instituted the \_\_\_\_\_ where at 9 o’clock every morning; all criminals arrested in the past 24 hours were marched before his detectives who were expected to make notes and to recognize the criminals later.

**Ans:** Mulberry Street Morning Parade

**Page ref:** 6

40. In 1967, the \_\_\_\_\_ was made operational by the FBI, providing data on wanted persons and property stolen from all 50 states.

**Ans:** National Crime Information center (NCIC)

**Page ref:** 8

41. The \_\_\_\_\_ revolution and subsequent Supreme Court decisions changed questionable and improper police procedures and tactics.

**Ans:** due process

**Page ref:** 8-9

42. All crime scenes are searched on the basis of Edmond Locard’s \_\_\_\_\_, which asserts that when perpetrators come into contact with the scene, they will leave something of themselves and take away something from the scene.

**Ans:** exchange principle

**Page ref:** 9

43. The first foreigner trained in the use of the Henry classification system was New York City Detective \_\_\_\_\_ in 1904.

**Ans:** Joseph Faurot

**Page ref:** 11

44. The \_\_\_\_\_ Cases involved blood samples from about 5,500 men living in the area for DNA typing in an attempt to identify a rape suspect.

**Ans:** Enderby

**Page ref:** 13

45. \_\_\_\_\_ helped produce the first workable polygraph in 1921 and established America's first full forensic laboratory in Los Angeles in 1923.

**Ans:** August Vollmer

**Page ref:** 15

### **Essay Questions**

46. Who were the Bow Street Runners and of what historical importance are they?

**Ans:** The Bow Street Runners were a small group of volunteer, non-uniformed homeowners established in 1750 by Henry Fielding to "take thieves." In "taking thieves" they would hurry to the scene of a crime and begin an investigation, thus becoming the first modern detective force.

**Page ref:** 3

47. Why did the British public object to the use of detectives following the Metropolitan Police Act of 1829?

**Ans:** French citizens had been repressed under centralized policing. In England there was fear that the use of "police spies" (detectives in plain clothes) would reduce civil liberties. In 1833 a Sergeant Popay was dismissed from the London Metropolitan Police because he infiltrated a radical group, acquired a leadership position, and argued for the use of violence.

**Page ref:** 3

48. Why did the office of detective in this country initially evolve in the private sector?

**Ans:** First, graft and corruption were common in big city police departments. Second, municipal police jurisdictions were limited. Third, there was little communication between police departments in different cities. Thus, offenders could flee from one jurisdiction to another with impunity. When individuals and businesses could not get reliable investigative services from the public sector, it created the possibility of the private sector (such as Pinkerton's National Detective Agency) providing such services.

**Page ref:** 4

49. What parallels can be drawn between Allan Pinkerton and J. Edgar Hoover?

**Ans:** Both of them understood the importance of: (1) information, (2) criminal records, and (3) publicity favorable to their efforts.

**Page ref:** 5 & 8

50. What did the "due process revolution" and subsequent Supreme Court decisions change with respect to the police?

**Ans:** Questionable and improper police procedures and tactics were greatly reduced. In turn, this created the need to develop new procedures and tactics and to make sure that officers were well trained in their uses. There has been an ongoing cycle of decisions and adaptation to them by the police since the due process revolution. To no small extent, this ongoing cycle has hastened the continuing professionalization of the police, while also asserting the principle that the action of police officers anywhere may be subject to close scrutiny by the Supreme Court.

**Page ref:** 9



51. What are the milestones in the development of dactylography?

**Ans:** (1) 1st century: Roman lawyer Quintilianus used a bloody fingerprint to successfully defend a child accused of murder.

(2) 8th century: Used on contracts in China (also in 14th century Persia and 17th century England, thought to awe people into keeping agreements, no individual identification by fingerprints possible at the time).

(3) 1684: England's Dr. Grew called attention to systems of pores in ridges in hands and feet.

(4) 1686: Marcello Malpighi confirmed Grew's observations.

(5) 1823: Professor Perkinje named nine standard fingerprint patterns and outlined a broad method of classifying them.

(6) 1877: Herschel wrote to the Inspector General of the Prisons of Bengal about using fingerprints as means of personal identification. This suggestion was rejected as Inspector General thought that Herschel's letter was the product of delirium.

(7) 1880: Faulds matched sooty fingerprint on a whitewashed wall to that of suspect.

(8) 1880: Faulds reported his finding in *Nature*, provoking controversy between Herschel and Faulds.

(9) 1892: Galton published *Fingerprints*, the first definitive book on dactylography.

(10) 1892: Inspector Alvarez, a disciple of Vucetich, got the first South American criminal conviction based on fingerprints.

(11) 1894: Vucetich published *Dictiloscopia Comparada*, outlining his system of fingerprint classification.

(12) 1900: Henry system adopted in England.

(13) 1901: Henry publishes *Classification and Use of Fingerprints*, outlining his system of fingerprint classification.

(14) 1903: the Will West/William West case at the U.S. Penitentiary at Leavenworth, Kansas demonstrated the superiority of dactylography to anthropometry.

(15) 1904: Detective Sergeant Faurot of the NYCPD becomes the first foreigner to study the Henry system; in 1906 he obtained the theft conviction of "James Jones" by the use of fingerprints.

(16) 1917: the Argentine government seized all of Vucetich's records and forbade him to do further work, largely because of strong protests in Buenos Aires against wide-spread fingerprint registration.

**Page ref: 10-12**

52. Why does the Henry classification enjoy greater use than Vucetich's system?

**Ans:** In 1917, the Argentine government seized all of Vucetich's records and forbade him to do further work (due to strong protests in Buenos Aires against wide-spread fingerprint registration). In 1925, Vucetich died a disappointed man. In contrast, Henry became the head of what was then the world's most prestigious police organization and enjoyed the support of his country. These advantages, coupled with Vucetich's loss of support in his own country, meant the Henry classification system would become adopted virtually worldwide.

**Page ref: 12**

53. What are seven different human sources of DNA material identified in this chapter?

**Ans:** These sources are: (1) blood, (2) tissue, (3) spermatozoa, (4) bone marrow, (5) tooth pulp, (6) saliva and (7) hair root cells.

**Page ref: 13**

54. Of what significance is the palo verde seedpod case in Phoenix, Arizona?

**Ans:** It is the first case in which "genetic fingerprinting" was applied to plant evidence in a criminal case.

**Page ref: 14**

55. What are the milestones in the development of firearms identification?

**Ans:** (1) 1835, Henry Goddard (one of the last of the Bow Street Runners) made the first successful attempt to identify a murderer from a bullet recovered from the victim's body. At the home of a suspect, Goddard seized a bullet mold with a defect in it corresponding to a mark on the recovered bullet.

(2) 1889, Professor Lacassagne recovered a bullet from a corpse. The bullet had seven grooves on it. Shown a number of suspect guns, Lacassagne identified the one that could have left seven grooves. However, any number of guns manufactured at that time could have made seven grooves and there is no way of knowing if the right person was found guilty.

(3) 1898, Paul Jeserich took microphotographs of fatal and test bullets and based on their respective normalities and irregularities testified that the defendant's revolver fired the fatal bullet. At the doorstep of scientific greatness, Jeserich did not pursue this discovery any further, turning his attention to other interests.

(4) 1913, Professor Balthazard published perhaps the single most important article on firearms identification. In it he noted that the firing pin, breechblock, extractor, and ejector all leave marks on cartridges and that these varied among different types of weapons.

(5) 1926, Calvin Goddard became the head of a team working on firearms identification. He is considered the person most responsible for raising firearms identification to a science and for perfecting the bullet comparison microscope.

**Page ref: 14-15**