

Chapter 1

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) Forensic science is the application of science to:
 - A) civil laws.
 - B) crime scene reconstruction.
 - C) speech making.
 - D) both criminal and civil laws.
 - E) criminal laws.
- 2) Which area of science is NOT involved in criminalistics?
 - A) geology
 - B) chemistry
 - C) biology
 - D) metallurgy
 - E) none of the above
- 3) The fictional character of Sherlock Holmes was created by:
 - A) Darwin.
 - B) Dalton.
 - C) Denton.
 - D) Boyle.
 - E) Doyle.
- 4) Who is known as the "father of forensic toxicology"?
 - A) Vidocq
 - B) Lattes
 - C) Locard
 - D) Osborn
 - E) Orfilia
- 5) Who developed the system known as anthropometry?
 - A) Galton
 - B) Bertillon
 - C) Goddard
 - D) Gross
 - E) Boaz
- 6) Who undertook the first definitive study of fingerprints as a method of personal identification?
 - A) Goddard
 - B) Lattes
 - C) Gross
 - D) Galton
 - E) Locard

- 7) Who devised a technique for determining the blood group of a dried bloodstain, which he applied to criminal investigations?
- A) Landsteiner
 - B) Bertillon
 - C) Gross
 - D) Locard
 - E) Lattes
- 8) Who established the comparison microscope as the indispensable tool of the modern firearms examiner?
- A) Goddard
 - B) Lattes
 - C) Galton
 - D) Gross
 - E) Osborn
- 9) Who wrote the first treatise describing the application of science to the field of criminal investigation?
- A) Landsteiner
 - B) Locard
 - C) Vidocq
 - D) Gross
 - E) Osborn
- 10) Who established the first workable crime laboratory?
- A) Galton
 - B) Doyle
 - C) Locard
 - D) Osborn
 - E) Bertillon
- 11) Who postulated the exchange of evidence principle?
- A) Gross
 - B) Bernoulli
 - C) Locard
 - D) Galton
 - E) Osborn
- 12) The oldest forensic laboratory in the United States is that of the:
- A) Los Angeles Police Department.
 - B) DEA.
 - C) Secret Service.
 - D) FBI.
 - E) NYC Police Department.
- 13) Approximately how many operating crime labs are there in the United States (federal, state and country) ?
- A) 200
 - B) 300+
 - C) 250
 - D) 75
 - E) 150

- 14) Which of the following can be rightfully cited as an explanation for the rapid growth of crime labs during the last 25 years?
- A) advent of DNA profiling
 - B) increase in drug-related arrests
 - C) staggering increase in crime rates in the United States
 - D) Supreme Court decisions in the 1960s
 - E) all of the above
- 15) Which entity maintains the largest crime laboratory in the world?
- A) FBI
 - B) Scotland Yard
 - C) Royal Canadian Mounted Police
 - D) LAPD
 - E) ATF
- 16) Which would not be included in the work of the biology unit of a crime lab?
- A) DNA profiling
 - B) comparison of hairs
 - C) semen stains
 - D) fingerprint analysis
 - E) blood typing
- 17) Which unit has the responsibility for the examination of body fluids and organs for the presence of drugs and poisons?
- A) biology unit
 - B) toxicology unit
 - C) evidence collection unit
 - D) trace evidence unit
 - E) physical science unit
- 18) The concept of "general acceptance" of scientific evidence relates to the:
- A) Miranda warnings.
 - B) Frye standard.
 - C) exclusionary rule.
 - D) First Amendment.
 - E) John's Law.
- 19) In the case of *Daubert v. Merrell Dow Pharmaceutical, Inc.*, the U.S. Supreme Court advocated that a "gatekeeper" determine the admissibility and reliability of scientific evidence. This gatekeeper is the:
- A) prosecutor.
 - B) court clerk.
 - C) trial judge.
 - D) expert witness.
 - E) jury.
- 20) Which of the following is NOT true? An expert witness must be able to demonstrate:
- A) working knowledge of the subject matter.
 - B) skill in trade or profession of interest to the court.
 - C) education in his/her area of expertise.
 - D) significant experience in a relevant field.

E) formal degree in forensic science.

21) The final evaluator of forensic evidence is the:

- A) prosecutor.
- B) jury.
- C) media.
- D) police.
- E) accused.

22) What is the LEAST important consideration in the gathering of evidence at a crime scene?

- A) competent collection of materials
- B) completion of the chain of custody documents
- C) proper recognition of the evidence
- D) guilt of the suspect(s)
- E) adequate preservation of samples

23) Which matter is NOT the province of civil litigation? The determination of competency to:

- A) refuse medical treatment.
- B) sell property.
- C) prepare a will.
- D) purchase a vehicle.
- E) stand trial for burglary.

24) Bite marks would be LEAST likely to be found in cases involving:

- A) child abuse.
- B) assault.
- C) arson.
- D) sexual abuse.
- E) murder.

25) Forensic odontology refers to the study of:

- A) drugs.
- B) pollen.
- C) rocks.
- D) teeth.
- E) bones.

26) Which of the following services are typically provided to law enforcement by crime laboratories?

- A) odontology
- B) criminalistics
- C) psychology
- D) polygraph
- E) pathology

27) Which of the following individuals was not an earlier contributor to the field of forensic toxicology?

- A) Mathieu Orfila
- B) Alphonse Bertillon
- C) Carl Wilhelm Scheele
- D) Valentin Ross
- E) James Marsh

- 28) The case of *Coppolino v. State* highlights issues dealing with:
- A) the admissibility of the polygraph.
 - B) search and seizure.
 - C) the evidential value of confessions.
 - D) warrantless searches.
 - E) the acceptability of new scientific tests.
- 29) The scientific method requires that scientific evidence be validated by:
- A) formulating pertinent questions.
 - B) formulating hypotheticals.
 - C) performing experiments.
 - D) All of the above.
 - E) Just A and B.
- 30) The ten sections of The American Academy of Forensic Science include all of the following except:
- A) Arson/Explosives
 - B) General
 - C) Jurisprudence
 - D) Toxicology
 - E) Criminalistics
- 31) The tendency of the public to believe that every crime scene will yield forensic evidence and their unrealistic expectations that a prosecutor's case should always be bolstered and supported by forensic evidence is known as:
- A) the Scientific Method
 - B) Jurisprudence
 - C) Anthropometry
 - D) Locard's Principle
 - E) the CSI Effect
- 32) What is the major problem facing the forensic DNA community?
- A) backlog of unanalyzed DNA samples
 - B) lack of recent advancements in DNA technology
 - C) mistrust of DNA profiling results by the public
 - D) contamination of DNA samples by evidence collectors
 - E) existence of computerized DNA databases
- 33) The wide variation in which services are offered in different crime laboratories is due to:
- A) the competition among crime laboratories for speed in case processing
 - B) variations in local laws
 - C) budgetary and staffing limitations
 - D) B and C only
 - E) all of the above
- 34) The _____ unit applies principles and techniques of chemistry, physics, and geology to the identification and comparison of crime-scene evidence.
- A) physical science
 - B) toxicology
 - C) biology
 - D) forensic geology
 - E) none of the above

- 35) Which specialized area of forensic science examines the relationship between human behavior and legal proceedings?
- A) forensic psychology
 - B) forensic jury selection
 - C) forensic psychiatry
 - D) jurisprudence
 - E) behavioral criminalistics
- 36) A crime scene which involved the collapse of a structure would be analyzed by specialists in the area of:
- A) criminalistics
 - B) forensic entomology
 - C) forensic engineering
 - D) forensic error analysis
 - E) forensic computer and digital analysis
- 37) What factor(s) do(es) the court usually take into consideration as sufficient grounds for qualification as an expert witness?
- A) experience
 - B) training
 - C) education
 - D) A and B only
 - E) all of the above
- 38) Specially trained personnel called _____ are employed by some crime laboratories on 24-hour call to retrieve evidence and have all the proper tools and supplies for proper collection and packaging of evidence at their disposal.
- A) crime scene investigators
 - B) evidence technicians
 - C) police officers
 - D) forensic pathologists
 - E) evidence officers