

Chapter 2

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

- 1) The first officer arriving at a crime scene, after providing or obtaining medical assistance for the injured and effecting an arrest of suspects (if possible), should immediately:
 - A) photograph the scene.
 - B) search for evidence.
 - C) make a rough sketch of the scene.
 - D) take notes.
 - E) secure the scene.

- 2) The most basic methods of crime scene recording include all of the following EXCEPT:
 - A) infrared analysis.
 - B) narrated videotape.
 - C) sketches.
 - D) photographs.
 - E) note taking.

- 3) If the crime scene includes a dead body, the photographer should:
 - A) determine the time of death.
 - B) depict injuries and weapons at scene.
 - C) attempt to identify the victim.
 - D) attempt to locate the victim's next of kin.
 - E) document all forensic personnel at crime scene.

- 4) A rough sketch need NOT include a:
 - A) location of walls, doors and windows in the building on scene.
 - B) sketch of the suspect(s).
 - C) compass heading designating north.
 - D) date, location, and time of the incident.
 - E) location of all recovered physical evidence.

- 5) CAD programs enhance the ability to:
 - A) produce a finished crime scene sketch.
 - B) edit videotape.
 - C) develop photographs.
 - D) create chain-of-custody documents.
 - E) take complete notes.

- 6) Which statement about note taking is NOT true?
 - A) Notes should include location of physical evidence recovered.
 - B) Note taking is done after all crime scene processing has been completed.
 - C) The date of the investigation should be recorded.
 - D) Disposition of items after collection must be included.
 - E) The individual who packaged and marked items of evidence should be recorded.

- 7) Which crime scene search pattern would absolutely require more than one investigator?
- A) line
 - B) zone
 - C) spiral
 - D) grid
 - E) none of the above
- 8) Physical evidence at a hit-and-run scene could include:
- A) glass fragments.
 - B) fabric impressions.
 - C) paint chips.
 - D) fiber and tissue.
 - E) all of the above
- 9) Which of the following is a correct physical evidence collection procedure?
- A) All items collected from the same grid area should be packaged together.
 - B) The victim's clothing should be obtained at the crime scene and vacuumed to obtain trace evidence.
 - C) Bloodstained garments should be packaged separately in paper bags.
 - D) Every item collected should be secured individually in a plastic bag to prevent contamination.
 - E) Items recovered from the scene of a murder should be sent along with the body to the medical examiner.
- 10) Charred debris from an arson scene should be:
- A) thrown away with the other fire debris.
 - B) packaged in air tight glass jar.
 - C) placed in Ziploc® bags.
 - D) aired out before packing in plastic wrap.
 - E) placed together with similar items in a paper bag.
- 11) A victim's fingernail scrapings would be correctly packaged in:
- A) a druggist fold.
 - B) sealed, airtight containers.
 - C) a plastic Ziploc® bag.
 - D) both B and C
 - E) none of the above
- 12) The successful outcome of a criminal investigation is almost always directly related to:
- A) the manner in which the evidence is collected and preserved.
 - B) the number of people employed in the crime lab.
 - C) the volume of the physical evidence collected.
 - D) the complexity of the crime.
 - E) whether the crime is considered high profile.
- 13) A properly maintained chain of custody is NOT the responsibility of the:
- A) evidence clerk.
 - B) forensic technician.
 - C) trial judge.
 - D) trace evidence examiner.
 - E) crime scene processor.

- 14) Success in the recognition and collection of physical evidence is determined primarily by the:
- A) type of evidence involved.
 - B) size of the budget of the crime lab.
 - C) time available to the evidence collectors.
 - D) skill of personnel processing the crime scene.
 - E) notoriety of the case.
- 15) The collection of standard reference samples at the crime scene is important because they:
- A) prevent the laboratory from making mistakes.
 - B) are obtained only from suspects in cases of violent assault.
 - C) prove the continuity of possession.
 - D) serve as a source of extra test material if required in the crime lab.
 - E) permit comparisons to be made with the evidence.
- 16) A corpse was discovered in an apartment last November. It was that of a 50-year-old male who died of a heart attack. At the time of discovery, the body temperature was determined to be 89°F. What is the most probable post mortem interval?
- A) 2 hours
 - B) 12 hours
 - C) 1 hour
 - D) 4 hours
 - E) 7 hours
- 17) The rate of cooling of a dead body can be influenced by all BUT the:
- A) exposure to direct sunlight.
 - B) weather conditions.
 - C) location.
 - D) size of body.
 - E) gender of victim.
- 18) As the post mortem interval increases, the concentration of potassium in the vitreous humor of the eye:
- A) remains the same.
 - B) decreases.
 - C) increases.
- 19) Which is NOT a manner of death?
- A) accident
 - B) suicide
 - C) natural
 - D) drowning
 - E) homicide
- 20) According to forensic entomologists, which "witness" is the first to arrive at the crime scene?
- A) mite
 - B) spider
 - C) carrion beetle
 - D) blow fly
 - E) centipede

- 21) Rigor mortis refers to the:
- A) odor of death.
 - B) stiffness of death.
 - C) temperature of death.
 - D) time of death.
 - E) color of death.
- 22) The systematic collection, organization, and analysis of information is a process known as:
- A) criminal profiling.
 - B) forensic science.
 - C) crime scene investigation.
 - D) the scientific method.
 - E) crime scene reconstruction.
- 23) Which type of evidence must be packaged separately from other evidence?
- A) biological stain evidence
 - B) DNA-containing evidence
 - C) arson evidence
 - D) A and B
 - E) all of the above
- 24) Which of the following items is likely to contain DNA evidence?
- A) a glass fragment
 - B) a bedsheet
 - C) a self-adhesive mailing stamp
 - D) a blue rug fiber
 - E) all of the above
- 25) All of the following items may be placed in an airtight container except:
- A) explosive residues
 - B) hairs and fibers
 - C) bloodstained clothing
 - D) charred debris recovered from a fire
 - E) glass
- 26) Investigators should collect possible carriers of trace evidence which may include:
- A) vacuum sweepings.
 - B) clothing.
 - C) vehicles.
 - D) fingernail scrapings.
 - E) all of the above.
- 27) The crime scene notes must accurately record:
- A) the tasks assigned each investigator.
 - B) personnel arrivals and departures from the scene.
 - C) descriptions of evidence present at the crime scene.
 - D) arrival and departure times of media personnel and on-lookers.
 - E) A, B, and C.

- 28) Videotapes of the crime scene:
- A) are required in all jurisdictions.
 - B) are generally of poor quality and little value.
 - C) can be used in place of notes and photographs.
 - D) must be complemented by a hard copy of notes and separate still photographs.
 - E) are not admissible in court due to the poor image quality.
- 29) Crime scene sketches serve a unique purpose in permanently documenting the location of evidence:
- A) collected and removed from the crime scene.
 - B) containing drug evidence.
 - C) processed at the crime scene.
 - D) not documented in photographs.
 - E) in plain view.
- 30) What part of a decedent's body resists rapid decomposition and is used by forensic anthropologists to provide information about the decedent?
- A) bones
 - B) cartilage
 - C) soft tissue
 - D) hair fragments
 - E) teeth
- 31) A forensic anthropologist may help to create a(n) _____ to help with the identification of the victim.
- A) fingerprint chart
 - B) dental profile
 - C) DNA profile
 - D) autopsy chart
 - E) facial reconstruction
- 32) Estimations of the postmortem interval (PMI) using entomological evidence must take into account:
- A) the species of insect present.
 - B) geographical location of the decedent's body.
 - C) the location's climate over time.
 - D) weather conditions.
 - E) all of the above
- 33) Insect evidence should be collected:
- A) at the scene by a forensic entomologist or trained investigator.
 - B) upon the finding of the decedent by the first responding officer.
 - C) only from the body.
 - D) at the crime laboratory by forensic analysts.
 - E) during the autopsy by the medical examiner.
- 34) Evidence of tampering with the position of a body after death can be obtained by evaluating the:
- A) rigor mortis.
 - B) algor mortis.
 - C) livor mortis.
 - D) both B and C
 - E) none of the above

- 35) If a cause of death cannot be found through simple observation of the victim, a(n) _____ is typically carried out.
- A) drug screening
 - B) autopsy
 - C) facial reconstruction
 - D) crime scene investigation
 - E) anthropological profile
- 36) Typically, about an hour after death, the a deceased body loses heat at a rate of approximately _____ until the body reaches the environmental temperature.
- A) 12 °F per hour
 - B) 1-1 ½ °F per minute
 - C) 0.1-0.2 °C per hour
 - D) 1-1 ½ °C per hour
 - E) 1-1 ½ °F per hour
- 37) To determine the gender of skeletal remains, a forensic anthropologist can examine all of the following area of the skeleton except:
- A) cranium
 - B) pelvis
 - C) sacrum
 - D) vertebrae
 - E) femur
- 38) The stage of fusion of various bones within a skeleton can be used to estimate the _____ of the decedent.
- A) occupation
 - B) age
 - C) race
 - D) gender
 - E) height

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

- 39) Define physical evidence and its significance to the area of forensic science.
- 40) List and explain the responsibilities of the first officer at a crime scene.
- 41) List and explain the necessary steps to thoroughly record a crime scene.
- 42) Diagram and describe the four primary search patterns that are employed to systematically search a crime scene for physical evidence.
- 43) Describe the proper techniques for packaging evidence at a crime scene.
- 44) Define and explain the concept of the chain of custody.
- 45) Define and explain the role(s) of the following forensic specialists:
 - Forensic Pathologist
 - Forensic Entomologist
 - Forensic Anthropologist