Forensic Science 1st Semester Exam

Do not write on this exam. Write your answer choice on the Scantron.

1. Eyewitness accounts of crime-scene events vary considerably from one person to another. What you observe depends on your level of:

|  |  |  |
| --- | --- | --- |
|  | a. | interest. |
|  | b. | stress. |
|  | c. | concentration and the amount and kind of distraction that may be present. |
|  | d. | All of these choices. |

1. To ensure all evidence is found, a crime scene is often laid out in a:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | grid. | b. | map. |
|  | c. | timeline of factual evidence. | d. | purposeful topographic survey. |

1. When evaluating eyewitness testimony, the investigator must discriminate between fact and:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | observation. | b. | opinion. |
|  | c. | perception. | d. | None of these choices. |

1. A person who has seen someone or something and can communicate these facts is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | an eyewitness. | b. | a witness. |
|  | c. | a personal observer. | d. | a court reporter. |

1. A psychologist who has spent the last 50 years studying faces, Paul Ekman is a leading expert on:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | forensic analysis and discovery. | b. | body language. |
|  | c. | facial analysis and deception. | d. | forensic analysis and truth. |

1. Ballistics experts work with:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | bullets and firearms. | b. | textiles and threads. |
|  | c. | human bodies and drugs. | d. | vehicles and tools. |

1. Criminal investigations depend on the observation skills of all involved.  Those involved include:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | police investigators. | b. | forensic scientists. |
|  | c. | witnesses. | d. | All of these choices. |

1. Forensic lab technicians are:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | tasked with handling all types of evidence. | b. | asked to attend crime-scenes. |
|  | c. | highly specialized and handle only one type of evidence. | d. | assigned to confirm the results of their colleagues. |

1. All evidence needs to be properly packaged, sealed, and labeled.  Liquids and arson remains are stored in:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | breathable containers. | b. | a bindle. |
|  | c. | airtight unbreakable containers. | d. | a plastic or paper container. |

1. Securing the crime scene is the responsibility of the first responding:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | law enforcement officer. | b. | crime scene investigator. |
|  | c. | detective. | d. | specialist. |

1. Crime scene investigators:

|  |  |  |
| --- | --- | --- |
|  | a. | record the crime-scene data. |
|  | b. | sketch the crime-scene. |
|  | c. | take photos of the crime scene. |
|  | d. | All of the above |

1. Specialists at a crime scene include:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | entomologists | b. | forensic scientists. |
|  | c. | forensic psychologists. | d. | All of these choices. |

1. The crime scene investigation team is made up of:

|  |  |  |
| --- | --- | --- |
|  | a. | legal professionals who work together to solve a crime. |
|  | b. | legal and scientific professionals who work together to solve a crime. |
|  | c. | scientific professionals who work together to solve a crime. |
|  | d. | None of these choices. |

1. Class evidence narrows an identity to:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | a subgroup. | b. | an individual person or thing. |
|  | c. | an individual person. | d. | a group of persons or things |

1. Animal hair and human hair have several differences including:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | the pattern of pigmentation. | b. | the medullary index. |
|  | c. | the cuticle type. | d. | All of these choices. |

1. Hair viewed for forensic investigations is studied both macroscopically and microscopically.  Microscopic characteristics include the:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | pattern of the medulla. | b. | pigmentation of the cortex. |
|  | c. | types of scales on the cuticle. | d. | All of these choices. |

1. All mammals have hair.  Its main purpose is to:

|  |  |  |
| --- | --- | --- |
|  | a. | protect the body from rugged terrain. |
|  | b. | protect the body from an attack. |
|  | c. | regulate body temperature by insulating the body. |
|  | d. | None of these choices. |

1. When humans are born, they have about:

|  |  |  |
| --- | --- | --- |
|  | a. | 5 million hair follicles, only two percent of which are on the head. |
|  | b. | 10 million hair follicles, only two percent of which are on the head. |
|  | c. | 5 million hair follicles, only five percent of which are on the head. |
|  | d. | 10 million hair follicles, only five percent of which are on the head. |
|  |  |  |

1. Investigators recognized the importance of analysis of hair as:

|  |  |  |
| --- | --- | --- |
|  | a. | trace evidence in criminal investigations in the late 1800s. |
|  | b. | secondary evidence in criminal investigations in the late 1880s. |
|  | c. | primary evidence in criminal investigations in the late 1880s. |
|  | d. | direct evidence in criminal investigations in the late 1880s. |

1. Hair is considered:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | secondary evidence. | b. | tertiary evidence. |
|  | c. | class evidence. | d. | individual evidence. |

1. A type of protein made up of a chain of amino acids that makes hair both strong and flexible is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | protein. | b. | keratin. |
|  | c. | cuticle. | d. | None of these choices. |

1. Fiberglass is a fiber form of:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | proteins. | b. | glass. |
|  | c. | cellulose. | d. | polymers. |

1. One seed fiber is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | coir. | b. | cotton. |
|  | c. | hemp. | d. | jute. |

1. All plant fibers share the common polymer that is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | protein. | b. | cellulose. |
|  | c. | sulfuric acid. | d. | None of these choices. |

1. Natural plant fibers are produced from:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | seeds. | b. | fruits. |
|  | c. | stems and leaves. | d. | All of these choices. |

1. Natural fibers come from:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | animals. | b. | plants. |
|  | c. | minerals that are mined from the ground. | d. | All of these choices. |

1. Fibers are classified as either:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | natural fibers or synthetic fibers. | b. | polymers or synthetic fibers. |
|  | c. | acrylic fibers or plant fibers. | d. | olefins or synthetic fibers. |

1. Fiber evidence is gathered with:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | vacuums. | b. | tape. |
|  | c. | forceps. | d. | glue. |
|  | e. | All of these |  |  |

1. The stamen consists of two parts: the anther and the:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | filament. | b. | ovule. |
|  | c. | stigma. | d. | pistil. |

1. The male part of the flower that is responsible for pollen production and dispersal is the:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | stamen. | b. | pistil. |
|  | c. | stigma. | d. | style. |

1. The transfer of pollen from an anther to a stigma within the same flower is known as:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | pollination. | b. | cross-pollination. |
|  | c. | self-pollination | d. | All of these choices. |

1. The pistil is the female part of a flower that produces:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | buds. | b. | stems. |
|  | c. | eggs. | d. | petals. |

1. The pistil is made up of the:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | stigma. | b. | style. |
|  | c. | ovary. | d. | All of these choices. |

1. Angiosperms are:

|  |  |  |
| --- | --- | --- |
|  | a. | evergreen plants and they produce seeds within a cone. |
|  | b. | flowering plants and they produce seeds within a fruit. |
|  | c. | flowering plants and they produce seeds within a cone. |
|  | d. | evergreen plants and they produce seeds within a fruit. |

1. The largest group of gymnosperms is the:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | cycads. | b. | conifers. |
|  | c. | ginkgoes. | d. | cycads. |

1. Seed plants include two groups:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | ferns and mosses. | b. | liverworts and horsetails. |
|  | c. | gymnosperms and angiosperms. | d. | None of these choices. |

1. Fingerprint arches may be:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | plain and tented arches. | b. | fancy and tented arches. |
|  | c. | multiple and tented arches. | d. | singular and tented arches. |

1. Fingerprint whorl patterns may be a:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | plain whorl. | b. | central pocket loop whorl. |
|  | c. | double loop whorl. | d. | All of these choices. |

1. During which week of gestation are fingerprints formed?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | 10th | b. | 20th |
|  | c. | 30th | d. | 40th |

1. Fingerprint collection began in 1856 by:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | Sir Archibald Hershey. | b. | Sir William Herschel. |
|  | c. | Lady Willamina Herschey. | d. | Sir Leroy Hersch. |

1. Actual indentations left in some soft material such as clay, putty, or wax is which type of fingerprint?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | latent | b. | plastic. |
|  | c. | patent. | d. | None of the above. |

1. What percent of latent prints at a crime scene come from the palm or side of the hand?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | 10-20 | b. | 20-30 |
|  | c. | 30-40 | d. | 40-50 |

1. In 1888, Sir Francis Galton, along with Sir E.R. Henry developed the classification system for fingerprints that is still in use today in:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | England and France. | b. | England and the United States. |
|  | c. | the United States and Europe. | d. | England and Germany. |

1. The total amount of DNA in a cell, which is contained in the cell's nucleus (nuclear DNA) and mitochondria (mtDNA), is called the human:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | genome. | b. | gene. |
|  | c. | allele. | d. | RNA. |

1. (GAAT) (GAAT) (GAAT) (GAAT) is an example of:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | restriction fragments. | b. | DNA fingerprinting. |
|  | c. | PCR. | d. | STR. |

1. Alternate forms of a gene are called:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | chromosomes. | b. | DNA. |
|  | c. | alleles. | d. | RNA. |

1. DNA in chromosomes is called

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | DNA. | b. | DNA chromosomes. |
|  | c. | nuclear DNA. | d. | structural DNA. |

1. Which chromosomes have the same shape and contain the same genes?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | genes | b. | autosomes |
|  | c. | (XX) | d. | introns |

1. James Watson and Francis Crick received the 1953 Nobel Prize for their work on describing the structure of DNA as:

|  |  |  |
| --- | --- | --- |
|  | a. | a double helix that resembles a twisted ladder. |
|  | b. | a helix that resembles a twisted ladder. |
|  | c. | a triple helix that resembles a twisted ladder. |
|  | d. | None of these choices. |

1. The term that describes a picture of homologous pairs of human chromosomes is:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | a. | karyotype. | b. | genetics. |
|  | c. | archetype. | d. | All of these |