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 |