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| 1. The most common type of regenerated fiber, which is derived from cellulose and is mostly plant in origin, is rayon.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

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| 2. Synthetic polymer fibers, which all originate with petroleum products, are cellulose-based fibers.

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| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

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| 3. Polyester has properties similar to nylon except it is easily broken down by light and concentrated acid.

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| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

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| 4. A disadvantage of manufactured fibers is that they can deteriorate in bright sunlight and melt at a lower temperature than natural fibers.

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| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

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| 5. Fibers are woven into textiles or fabrics.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

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| 6. Fibers that have been spun together are called:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | a textile. | b.  | yarn. |
|   | c.  | a mineral fiber. | d.  | a fiber. |

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| 7. A small molecule that may bond to other monomers to become a polymer is a:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | monomer. | b.  | polymer. |
|   | c.  | fiber. | d.  | None of these choices. |

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| 8. When fibers are transferred directly from victim to suspect or suspect to victim, this is called:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | necessary transfer. | b.  | direct transfer. |
|   | c.  | absolute transfer. | d.  | None of these choices. |

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| 9. The transfer of evidence such as a fiber from a source to a person, then to another person, is called:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | primary transfer. | b.  | tertiary transfer. |
|   | c.  | secondary transfer. | d.  | direct transfer. |

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| 10. Early collection of fibers in an investigation is critical.  Within 24 hours, an estimated:

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| --- | --- | --- |
|   | a.  | 75% of all fibers may have fallen from a victim or been lost from a crime scene. |
|   | b.  | 85% of all fibers may have fallen from a victim or been lost from a crime scene. |
|   | c.  | 95% of all fibers may have fallen from a victim or been lost from a crime scene. |
|   | d.  | None of these choices. |

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| 11. A forensic scientist will ask questions about:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | type of fiber. | b.  | fiber color. |
|   | c.  | number of fibers found. | d.  | where the fiber was found. |
|   | e.  | ​textile from which fiber originated. | f.  | ​a, b, and e |
|   | g.  | ​c, b, and d | h.  | ​All of these choices. |
|   | i.  | ​None of these choices.  |  |  |

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| 12. Fiber evidence is gathered with:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | vacuums. | b.  | tape. |
|   | c.  | forceps. | d.  | glue. |
|   | e.  | lint roller. | f.  | a, b, d, e |
|   | g.  | ​a, b, c, e | h.  | ​All of these choices. |

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| 13. Two methods that can analyze fibers without damaging them are:

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| --- | --- | --- |
|   | a.  | polarizing light microscopy and infrared spectroscopy. |
|   | b.  | polarizing light spectroscopy and infrared microscopy. |
|   | c.  | heat and light. |
|   | d.  | None of these choices. |

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| 14. Fibers are classified as either:

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

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| 15. Natural fibers come from:

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

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| 16. Natural plant fibers are produced from:

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

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| 17. All plant fibers share the common polymer that is:

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

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| 18. One seed fiber is:

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

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| 19. Fiberglass is a fiber form of:

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

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| 20. Until the nineteenth century, only plant or animal fibers were used to make clothing and textiles.  Half the fibers produced today are synthetic.  They are categorized as:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | a.  | fruit fibers and polymers | b.  | regenerated fibers and polymers. |
|   | c.  | stem fibers and polymers. | d.  | seed fibers and polymers. |

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| 21. Weave patterns have names like tabby, twill and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| 22. The simplest weave pattern is the plain, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, weave.

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| 23. The number of threads that are packed together for any given amount of fabric is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| 24. Manila is a fiber extracted from the leaves of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, a relative of the banana tree.

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| 25. Flax is the most common stem fiber, and is most commonly found in the textile, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| abaca | hemp | type of fiber |
| polymer | linen | tabby |
| thread count | satin | acrylic fibers |