Part A: Choose the BEST answer for each question.

____ 1. Any physical location in which a crime has occurred or is suspected of having occurred is known as a:

____ 2. Any evidence found at a crime scene in the form of a physical object is known as:

____ 3. The original location of a crime or accident is known as the _____ crime scene.
   A. first  B. primary  C. preferred  D. secondary

____ 4. Investigators work with sketch artists and eyewitnesses to create ________.

____ 5. Blood that contains both A and B agglutinogens is known as ______ blood.
   A. Type A    B. Type B  C. Type AB  D. Type 0

____ 6. An alternate location where additional evidence of a crime may be found is known as the _____ crime scene.
   A. contact  B. primary  C. preferred  D. secondary

____ 7. Which blood type is most common?
   A. Type A    B. Type B  C. Type AB  D. Type 0

____ 8. Physical evidence that is found at a crime scene in small but measurable amounts is known as ____ evidence.
   A. sample  B. primary  C. minute  D. trace

____ 9. The physical separation of a mixture into its individual components, such as black ink into colors, is called:
   A. physical selection.  B. chromatography.  C. solutions.

____ 10. Blood that does not contain any A and B agglutinogens is known as ______ blood.
    A. Type A    B. Type B  C. Type AB  D. Type 0

____ 11. Type of fingerprint pattern in which the ridge lines enter on one side of the print and exit on the other side are called:

____ 12. Mixtures in which one substance is dissolved in another are called:

____ 13. The _____ is the substance that does the dissolving in a solution, such as water in salt water.
    A. solute  B. solvent  C. soluble  D. insoluble

____ 14. Your blood type is determined by your ______, which you inherit from your parents.
    A. blood cells  B. height  C. weight  D. genes

____ 15. Blood that contains only A agglutinogens (AA or AO) is known as ______ blood.
    A. Type A    B. Type B  C. Type AB  D. Type 0

____ 16. Which blood type that is known as the universal recipient?
    A. Type A    B. Type B  C. Type AB  D. Type 0

____ 17. The _____ is the substance that is dissolved in a solution, such as salt in salt water.
    A. solute  B. solvent  C. soluble  D. insoluble
18. True or False: No two people have the exact same fingerprint pattern.
   A. True  B. False

19. Which blood type is known as the universal donor?
   A. Type A   B. Type B   C. Type AB   D. Type O

20. Type of fingerprint pattern in which the ridge lines enter on one side of the print and exit on the same side are called:

21. Blood that contains only B agglutinogens (BB or BO) is known as ______ blood.
   A. Type A   B. Type B   C. Type AB   D. Type O

22. Which type of fingerprint pattern is most common and found in 60% of people?

**Part B: Matching**

23. Identify each component of blood by matching each one with its best description.

   ___ RED BLOOD CELLS  A. They are part of the immune system and destroy infectious agents called pathogens.
   ___ WHITE BLOOD CELLS  B. The most abundant cells in our blood; they are produced in the bone marrow and contain a protein called hemoglobin that carries oxygen to our cells.
   ___ PLASMA  C. The clotting factors that are carried in the plasma; they clot together in a process called coagulation to seal a wound and prevent a loss of blood.
   ___ PLATELETS  D. The yellowish liquid portion of blood that contains electrolytes, nutrients and vitamins, hormones, clotting factors, and proteins such as antibodies to fight infection.

24. Identify each fingerprint based on its classification.

Plain arch  
Tented arch  
Loop  
Whorl  
Double Loop  
Accidental

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Part C: Blood Typing & Transfusions

25. Identify the blood type of each sample given the test results.

Suspect 1:

\[\begin{array}{c}
\text{A} \\
\text{B} \\
\text{Rh} \\
\end{array}\]

Blood Type: ___

Suspect 2:

\[\begin{array}{c}
\text{A} \\
\text{B} \\
\text{Rh} \\
\end{array}\]

Blood Type: ___

+ = Clumping  – = No clumping

26. If Suspect 1 were injured during the crime and needed blood, what blood types could he receive? _____ _____

27. If Suspect 2 volunteered to donate blood, which blood types could receive his blood? _____ _____

Part D: Blood Spatter

28. Which of the three blood droplets shown would have been created by a wound to the upper body? Circle your choice and explain.

29. If you have a blood droplet as shown below, what does it tell you? Explain

30. Analyze the two blood drop patterns shown below. Which one would best match a person who was walking at a fast rate of speed? Explain.

\[\begin{array}{c}
\text{Pattern 1} \\
\text{Pattern 2} \\
\end{array}\]