

**LABORATORY EXERCISE 37
BLOOD CELLS AND BLOOD TYPING**

Warning

Because of the possibility of blood-borne infections being transmitted from one student to another if blood slides are prepared in the classroom, it is suggested that commercially prepared blood slides and commercially prepared simulated blood-typing kits be used in this exercise. The instructor, however, may wish to demonstrate the procedures.

Laboratory Report Answers

PART A

- | | |
|--|------------------|
| 1. Erythrocytes | 5. Granulocytes |
| 2. Transporting and exchanging gases (O ₂ and CO ₂) | 6. Agranulocytes |
| 3. Hemoglobin | 7. Neutrophils |
| 4. Leukocytes | 8. Nucleus |

PART B

(sketches)

PART C

- | | |
|---------------------------|-----------------------|
| 1. (experimental results) | 2. Answers will vary. |
|---------------------------|-----------------------|

PART D

- | | |
|-----------------------------|-----------|
| 1. Red blood cell membranes | 5. Anti-B |
| 2. Four | 6. Anti-A |
| 3. A | 7. AB |
| 4. B | 8. O |

PART E

- | | |
|---------------------------|-----------------------|
| 1. (experimental results) | 4. Answers will vary. |
| 2. Answers will vary. | 5. Answers will vary. |
| 3. Answers will vary | |

PART F

- | | |
|------------------|----------------|
| 1. Rhesus monkey | 4. Agglutinate |
| 2. Antigen D | 5. Rh-positive |
| 3. Rh-negative | |

PART G

- | | |
|----------------------------|-----------------------|
| 1. (demonstration results) | 4. Answers will vary. |
| 2. Answers will vary. | 5. Answers will vary. |
| 3. Answers will vary. | |



Critical Thinking Application Answers

1. The anti-A serum would contain anti-A antibodies if clumping was observed for a person with type A blood. The anti-B serum would contain anti-B antibodies if clumping was observed for a person with type B blood.
2. A total white blood cell count provides the number of white blood cells in a given volume of blood; a differential white blood cell count gives the relative percentages of types of white blood cells in a blood sample.