

# Worksheet: The Pathway of Blood (Grade 10)

**Instructions:** Fill in the blanks, answer the short answer questions, and label the diagram.

## Part 1: The Blood Circuit (10 points)

1. Blood travels in a continuous loop throughout the body. This loop consists of two main circuits: the \_\_\_\_\_ circuit and the \_\_\_\_\_ circuit. (2 points)
2. The **systemic circulation** carries oxygenated blood from the \_\_\_\_\_ to the rest of the body and returns deoxygenated blood back to the \_\_\_\_\_. (3 points)
3. The **pulmonary circulation** carries deoxygenated blood from the \_\_\_\_\_ to the lungs for gas exchange and returns oxygenated blood back to the \_\_\_\_\_. (3 points)

## Part 2: Short Answer (10 points)

1. Briefly explain the role of valves in the heart. (2 points)

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2. What happens to the blood in the lungs during gas exchange? (2 points)

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3. Describe the difference between oxygenated and deoxygenated blood. (3 points)

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4. Why is the continuous circulation of blood essential for human health? (3 points)

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