

Student Name: _____

Total Points: ____ / 20

1. Oxygen Transfer (7 pts)

Item	Criteria	Score	Comments
Sketch of Curves	Accurate sketch showing intersection + correct shape.	__ / 2	
Definite Integral	Sets up and computes area between functions.	__ / 2	
Biological Meaning	Clear explanation of what area represents.	__ / 2	
Inequality Insight	Discusses impact if blood exceeds alveolar conc.	__ / 1	
Subtotal		__ / 7	

2. Neuron Arc Length (5 pts)

Item	Criteria	Score	Comments
Graph of Dendrite	Sketch of curve $y = \frac{1}{2}x^{3/2}$	__ / 2	
Arc Length Setup	Uses correct formula + derivative.	__ / 1	
Arc Length Calculation	Executes computation correctly.	__ / 2	
Subtotal		__ / 5	

3. Enzyme Activity (3 pts)

Item	Criteria	Score	Comments
Graph and Behavior	Sketch and describes function behavior.	__ / 1	
Interpretation	Explains meaning of area under curve.	__ / 1	
Integration Work	Correct integration by parts for total product.	__ / 1	
Subtotal		__ / 3	

4. Reflection Questions (5 pts)

Item	Criteria	Score	Comments
All 3 Reflections	Complete, thoughtful, connected to course.	__ / 5	
Subtotal		__ / 5	

Final Score: / 20