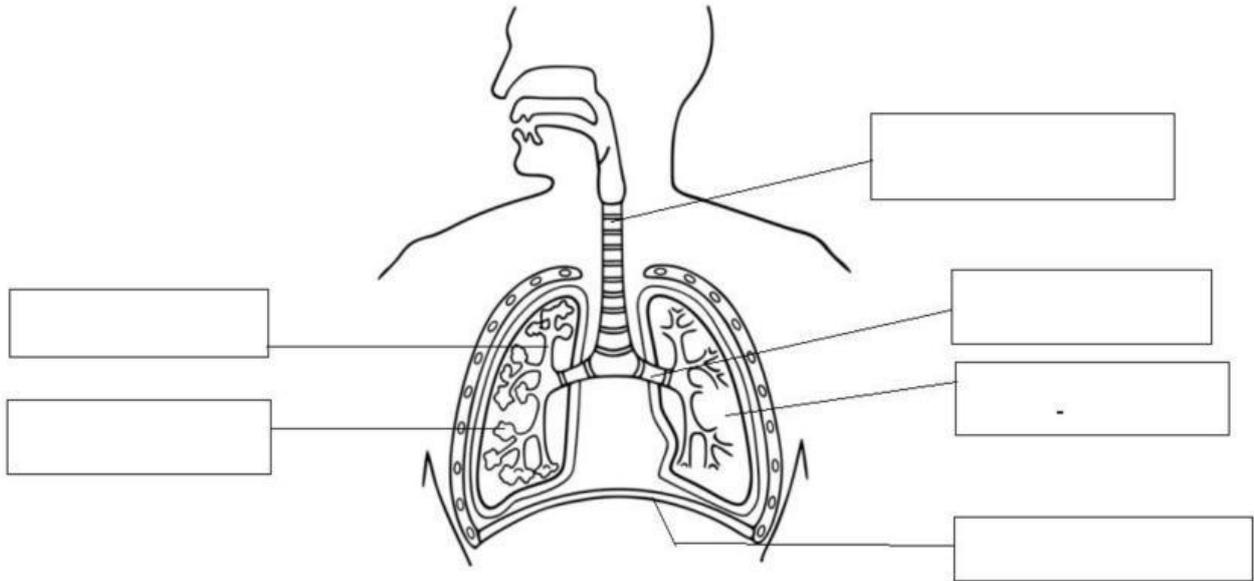


Name: \_\_\_\_\_

Date: \_\_\_\_\_

Answer ALL questions in the spaces below.

1. Label the following diagram of the respiratory system. [6 marks]



2. What is the WORD equation for aerobic respiration (oxidation of glucose)?

\_\_\_\_\_ [3 marks]

3. Complete the table below to compare anerobic respiration in plant and animal cells. [4 marks]

	PLANT CELL	ANIMAL CELL
STARTING MATERIAL		
PRODUCTS		

4. What is the result of a build-up of lactic acid in animal cells? [2 marks]

\_\_\_\_\_ and \_\_\_\_\_

5. State TWO ways that lactic acid in animal cells can be reduced after exercising? [2 marks]

\_\_\_\_\_ and \_\_\_\_\_

6. Define the term oxygen debt.

[2 marks]

7. Differentiate briefly the difference between aerobic and anaerobic respiration. [5 marks]

AEROBIC RESPIRATION	ANAEROBIC RESPIRATION
Glucose combines with oxygen.	A)
B)	In animal cells, lactic acid is the waste. In plants and yeast, carbon dioxide and ethanol are the waste.
Large amounts of energy produced (2880 kJ) per glucose molecule.	c.
D)	Glucose not completely broken down (ethanol and lactic acid can still be broken down further to release energy if oxygen is added).
Occurs in the mitochondria of cells.	e.

8. Complete the table below to compare the percentages gases in inhaled and exhaled air.

[3 marks]

	Inhaled Air (%)	Exhaled Air (%)
Oxygen		
Carbon dioxide		
Nitrogen		

9. There are 5 features of a gaseous exchange surface.

a. What occurs at a gas exchange surface.

[1 mark]

b. State THREE features that all gas exchange surfaces have. [3 marks]

I \_\_\_\_\_

II \_\_\_\_\_

III \_\_\_\_\_

c. Complete the table below about gas exchange surfaces of various organisms. [3 marks]

Organism	Gas Exchange Surface
Human	Alveoli
Fish	
Insects	Tracheoles
Single-celled organisms	
Leaf	

10. Label the diagram below. [5 marks]

