

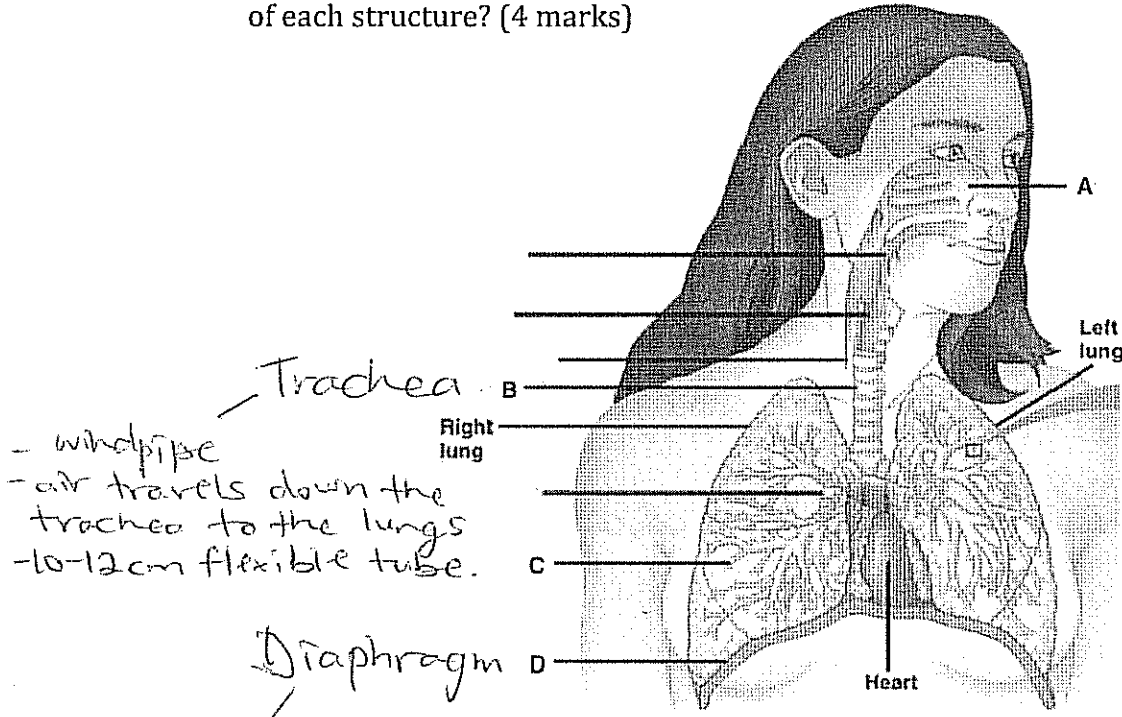
ANSWERS.

Respiratory System Quiz (P.2)

Name: _____

Date: _____

1. Identify the structures indicated by the letters **B** and **D**. What is the function of each structure? (4 marks)



- Trachea**
- windpipe
 - air travels down the trachea to the lungs
 - 10-12cm flexible tube.

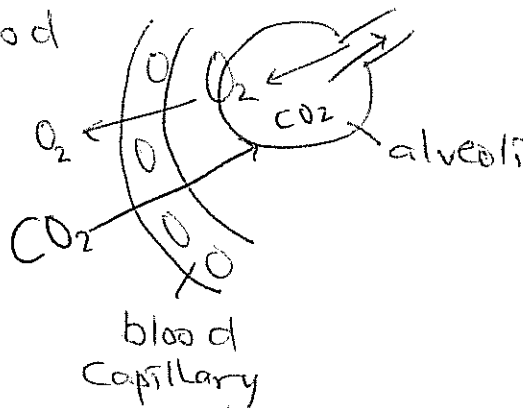
- Diaphragm**
- dome-shaped layer of muscle.
 - divides thoracic cavity from abdominal cavity.

2. Explain how diffusion is involved in external respiration. Draw a diagram to support your answer. (3 marks)

Gas exchange between the alveoli and blood capillaries

- O_2 goes from alveoli in the lungs to the blood capillaries

- CO_2 moves from blood capillaries to alveoli and outside the body.



3. What is the respiratory surface for fish? What is the respiratory surface for earthworms? How is the respiratory surface for fish more efficient than that of earthworms? (3 marks)

Fish → Gills

Earth worm → Outer skin

- Gills increase surface area.
 - Fish live in the water ∴ their respiratory surface is moist.
4. Explain the mechanics of exhalation. Be sure to include information about the diaphragm, rib cage, volume, pressure, and direction of air. (5 marks)

- Air ~~comes out~~ goes out.
- Diaphragm ~~contracts~~ relaxes and moves up.
- Rib cage moves in and down.
- Volume decreases.
- Pressure increases.

5. Identify and define the three volumes of air that make up an individual's vital capacity. (3 marks)

Tidal Volume - volume of air breathed in and out during normal breathing, while at rest.

Expiratory Reserve Volume - maximum amount of air that can be exhaled beyond normal exhalation.

Inspiratory Reserve Volume - additional volume of air that can be inhaled beyond normal inhalation.

6. A friend of your went to a rock concert over the weekend. She had a great time singing along with the band but she found that she could only whisper the next morning. What might be the problem? Explain how you reached your conclusion. (2 marks)

Laryngitis

- vocal cords gets swollen
- voice gets strained.