

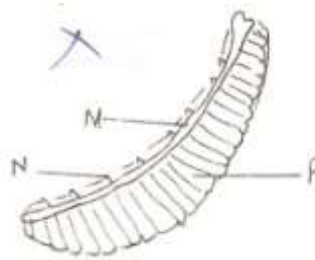
NAME _____ INDEX NUMBER _____

SCHOOL _____ DATE _____

GASEOUS EXCHANGE

1. 1992 Q11 P1

The diagram below represents an organ from a bony fish. Study the diagram and answer the questions that follow



(a) Identify the organ and the parts labelled M, N, and P

M.....

N.....

P.....

(b) How the structures are labelled P adapted to their function?

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2. 1994 Q14 P1

What are the characteristics do gills of a fish and the mouth cavity of a frog have in common that enables them to be efficient in gaseous exchange?

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3. 1996 Q14 P1

(a) Describe the path taken by carbon dioxide released from the tissue of an insect to the atmosphere (3 marks)

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(b) Name two structures used for gaseous exchange in plants (2 marks)

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4. 1998 Q4 P1

Why are gills in fish highly vascularised?

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5. 1999 Q5 P1

Suggest three reasons why green plants are included in a fish aquarium.

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6. 1999 Q16 P1

Describe the:

a) Process of inhalation in mammals.

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b) Mechanisms of opening and closing of stomata in plants.

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7. 2000 Q11c P1

State two ways in which the leaf is suited to gaseous exchange

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8. 2001 Q10 P1

Name three sites where gaseous exchange takes place in terrestrial plants.

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9. 2002 Q9 P1

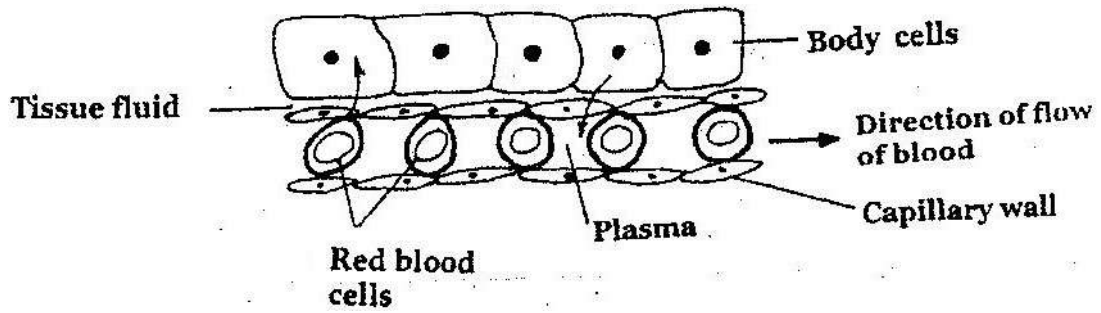
Name two gaseous exchange structures in higher plants.

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10. 2003 Q13 P1

The diagram below shows gaseous exchange in tissues.



a) Name the gas that diffuses:

i) To the body cells

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ii) From the body cells

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b) Which compound dissociates to release the gas named in (a) (i) above?

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c) i) What is tissue fluid?

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ii) What is the importance of tissue fluid?

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d) Name the blood vessel with the highest concentration of:

i) Glucose

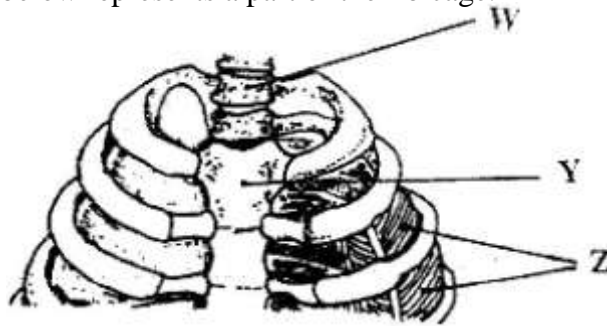
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ii) Carbon dioxide

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11. 2004 Q3 P1

The diagram below represents a part of the rib cage.



- a) Name the parts labelled W, Y and Z. (3 marks)

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- b) How does the part labelled Z facilitates breathing in? (3 marks)

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12. 2005 Q18 P1

Describe how gaseous exchange takes place in terrestrial plants. (20 marks)

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13. 2006 Q5 P1

State two ways in which floating leaves of aquatic plants are adapted to gaseous exchange. (2 marks)

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14. 2007 Q12 P1

(a) Name two structures for gaseous exchange in aquatic plant (2 marks)

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(b) What is the effect of contraction of the diaphragm muscles during breathing in mammals? (3 marks)

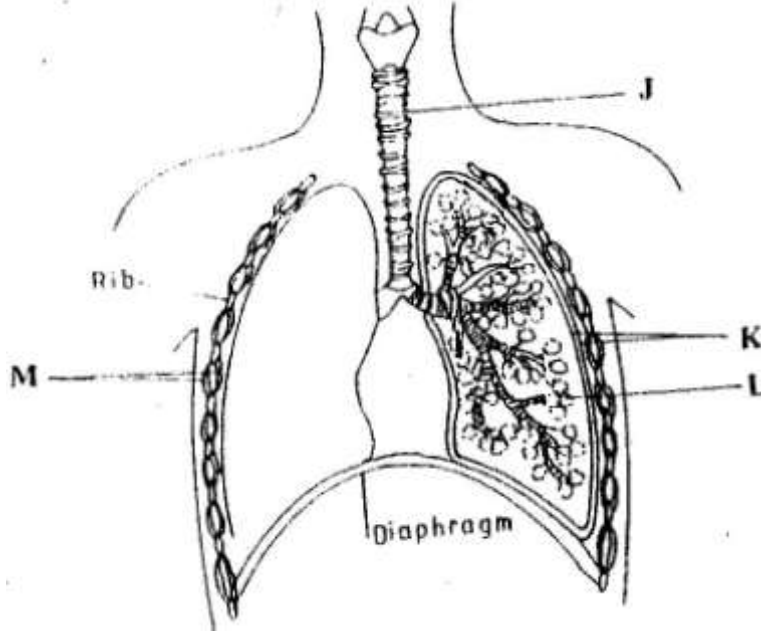
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15. 2007 Q1 P2

The diagram below represents some gaseous exchange structures in humans



(a) Name the structures labeled K, L, and M (3 marks)

- K.....
- L.....
- M.....

(b) How is the structure labeled J suited to its function? (3 marks)

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(c) Name the process by which inhaled air moves from the structure labeled L into blood capillaries (1 mark)

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(d) Give the scientific name of the organism that causes tuberculosis in humans (1 mark)

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16. 2008 Q8 P2

(a) State four characteristics of gaseous exchange surfaces (4 marks)

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17. 2009 Q16 P1

(a) Name the gaseous exchange surface in insects (1 mark)

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(b) How is the surface named in (a) above suited to its function (2 marks)

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18. 2011 Q19a P1

a) Apart from the lungs, name two gaseous exchange surfaces in a frog. (2 marks)

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19. 2011 Q22 P1

State the difference in content of oxygen and carbon (IV) Oxide in the air that enters and leaves the human lungs. (2 marks)

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20. 2011 Q3a, b P2

a) Name the causative agents for the following respiratory diseases.

i) Whooping cough. (2 marks)

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ii) Pneumonia (2 marks)

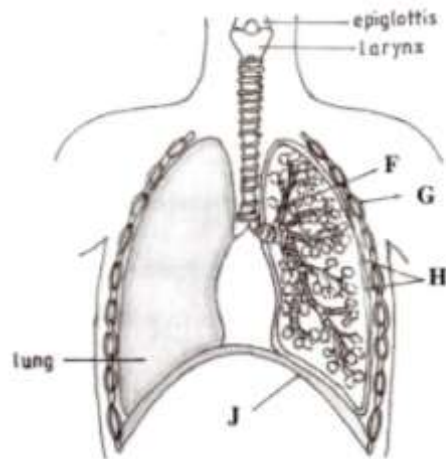
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b) Describe how oxygen in the alveolus reaches the red blood cells (4 marks)

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21. 2012 Q6 P1

The diagram below represents part of gaseous exchange system in human



(a) Name the parts labelled F and G. (2 marks)

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(b) State one function of each of the parts labelled H and J (2 marks)

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22. 2012 Q5 P2

(a) Describe the process of inhalation. (4 marks)

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(b) Explain the mechanism of stomatal opening (4 marks)

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