

BIOLOGY

BOOKS - SUPER COMPANION 5 IN 1

BREATHING AND EXCHANGE OF GASES

One Mark Questions And Answers

1. What are the protective covering of lung called ?



2. How is food prevented from entering the trachea?



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3. What type of muscle is found in diaphragm?



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4. What is meant by pulmonary ventilation?



5. What is bronchitis?



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6. What is asthma?



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7. What is emphysema?



8. What is tidal air volume?



9. State the name of the volume of air remaining in the lungs, after a normal breathing.



10. Name the primary site of exchange of gases in our body.



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11. A major percentage (97%) of oxygen is transported by RBCs in blood. How does the remaining percentage (3%) of O_2 gets transported?



Two Mark Questions And Answers

1. Explain transport of carbon dioxide by haemoglobin.



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2. Explain Hamburger's phenomenon.



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3. What are the changes that takes plate during inspiration?



4. Write any four differences between inspiration and expiration.



5. Briefly explain external respiration.



6. Differentiate external respiration from internal respiration.



7. Haemoglobin is an Oxygen carrier. Explain.



8. Mention the function of nasal cavity during breathing.



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9. Mention the various parts of human respiratory system in their connect sequence.



10. Define vital capacity . What is its significance?



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11. How is respiration regulated?



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12. What is the effect of P_{CO_2} on oxygen transport?

13. What happens to the respiratory process in a person going up a hill?



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14. What is the site of gaseous exchange in an insect?



15. What is Tidal volume ? Find out the Tidal volume (approximate value) for a healthy human in an hour.



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16. Diffusion of gases occurs in the alveolar region only, and not in the other parts of respiratory system. Why?



17. A fluid-filled double membranous layer surrounds the lungs. Name it, and mention its important functions.



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18. Arrange the following terms based on their volumes in an ascending order (a) Tidal volume (TV), (b)Residual Volume (RV), (c) Inspiratory Reserve Volume (IRV), (d) Expiratory Capacity (EC)



19. Complete the missing terms:

(a) Inspiratory Capacity (IC) $= \ldots + IRV$

(b)
$$\dots = TR + ERV$$



20. State the different modes of CO_2 transport in blood.



21. For completion of the respiration process, write the given steps in their proper sequence tail manner.

- (a) Diffusion of gases $(O_2$, and CO_2) across alveolar membrane.
- (b) Transport of gases by blood.
- (c) Utilisation of O_2 by the cells for catabolic reactions and resultant release of CO_2 .
- (d) Pulmonary ventilation by which, atmospheric air is drawn in $\mathrm{and}CO_2$ rich alveolar air is released out.

(e) Diffusion of O_2 , and CO_2 between the tissues.



Three Marks Questions With Answers

1. Distinguish between IRV and ERV



2. Distinguish between Inspiratory capacity and Expiratory capacity.



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3. Distinguish between Vital capacity and Total lung capacity.



4. Define the following terms:

Tidal volume



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5. Define the following terms:

Residual volume



6. Define the following terms:

Asthma



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7. Name the organs of respiration in the following organisms :

Flatworm



8. Name the organs of respiration in the following organisms :

Birds



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9. Name the organs of respiration in the following organisms :

Birds



Five Mark Questions And Answers

1. What is breathing? Explain the mechanism.



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2. Explain transport of carbon dioxide by the blood.



3. Describe the structure of human respiratory system.



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4. Explain the mechanism of breathing.

