



BIOLOGY

NCERT - FULL MARKS BIOLOGY(TAMIL)

BREATHING AND EXCHANGE OF GASES

Question

1. Define vital capacity. What is its significance?



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2. State the volume of air remaining in the lungs after a normal breathing.



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



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4. What are the major transport mechanisms for CO_2 ? Explain.



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5. What will be the pO_2 and pCO_2 in the atmospheric air compared to those in the alveolar air?

(i) pO_2 lesser, pCO_2 higher

(ii) pO_2 higher, $pCO_2 \leq$ lesser (iii) pO_2

higher, $p\text{CO}_2$ higher

(iv) $p\text{O}_2$ lesser, $p\text{CO}_2$ lesser



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6. Explain the process of inspiration under normal conditions.



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7. How is respiration regulated?



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8. What is the effect of pCO_2 on oxygen transport?



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9. What happens to the respiratory process in a man going up a hill?



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



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11. Define oxygen dissociation curve. Can you suggest any reason for its sigmoidal pattern?



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12. Have you heard about hypoxia? Try to gather information about it, and discuss with your friends.



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13. Distinguish between

(a) IRV and ERV

(b) Inspiratory capacity and Expiratory capacity

(c) Vital capacity and Total lung capacity



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



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