

(c) Cerebellum

(d) Hypothalamus

(Ans. b)

2 MARKS QUESTIONS

1. Give a brief account of respiratory organs in amphibians.
(Hints: Water- through moist skin and land – through lungs)
2. (a) What is the major cause for emphysema?
(b) Name the location of respiratory rhythm centre.
(Hints: (a) cigarette smoking, (b) medulla)
3. Name the muscles associated with inspiration and expiration.
(Hints: Diaphragm, external and internal intercostal muscles)
4. Name the bones which are associated with thoracic chamber.
(Hints: Sternum, vertebrae, ribs)
5. Distinguish between carbamino - haemoglobin and carboxy - haemoglobin.
(Hints: carbon-dioxide and haemoglobin and carbon-monoxide and haemoglobin)
6. Explain how partial pressure of gases associated with their transport?
(Hints: Definition of partial pressure, gases diffuse from high to low pressure)
7. What is the role of neural system in the regulation of respiration?
(Hints: Regulation of respiration by neural system, role of medulla, pons and pneumotaxic centre)
8. Explain the transport of oxygen in the form of oxy-haemoglobin.
(Hints: Factors affecting formation and dissociation of oxyhaemoglobin, transport of oxygen)

3 MARKS QUESTIONS

1. Give a brief description of transport of carbon dioxide.
(Hints: Transport of carbon dioxide in the form of carbamino-haemoglobin, bicarbonates and dissolved in plasma)
2. The diffusion membrane is made up of three major layers. Name the membranes and write how the thickness of these membranes help in diffusion.
(Hints: Exchange surface- 3 layers, epithelium of alveoli, endothelium of alveolar capillaries and basement membrane in between them)
3. Give a brief description of some important respiratory disorders.
(Hints: Names and symptoms of asthma, emphysema, ORDs)
4. What you mean by carbon monoxide poisoning? How it causes death of the affected person?
(Hints: Formation of carboxy-haemoglobin, affects the formation of oxyhaemoglobin, oxygen carrying capacity, lack of oxygen and death)

5 MARKS QUESTIONS

1. Brief the different steps involved in respiration in five steps.
(Hints: Explanation of five steps – Breathing, Exchange across alveolar membrane, transport of gases, exchange between blood and tissue and cellular respiration)
2. With the help of a neat labelled diagram explain the structure of human respiratory structure.
(Hints: Diagram and parts of respiratory system)
3. Carbonic anhydrase is an important enzyme that plays an important role in the transport of carbon dioxide. Explain its role in carbon dioxide transport. What are the other ways by which carbon dioxide is transported?
(Hints: Role of carbonic anhydrase in the transport of carbon dioxide – explanation and equation; transport as carbamino haemoglobin and dissolved in plasma)

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