Dt 15 may 2021

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Home Assignment

Inter questions pg-105

(3) How is oxygen and carbon dioxide transported in human beings?

ans. In human beings, oxygen is carried from the lungs by the respiratory pigment haemoglobin which is present in red blood corpuscles.

Carbon dioxide is more soluble in water than oxygen. So, most of the carbon dioxide produced during respiration in human body is transported in the dissolved form in our blood.

(4) How are alveoli designed in human beings to maximise the area for exchange of gases? (Exercise que-9)

ans. There are millions of alveoli in the lungs. The presence of millions of alveoli on the lungs a very large area for the exchange of gases. And as we know more is the surface area, more will be exchange of gases.

(9) How are the lungs designed in human beings to maximise the area for exchange of gases.

Ans. In humans, a pair of lungs are designed in such a way that they are lined by a thin membrane, the smaller tubes called bronchioles, a balloon like structure called alveoli and a network of blood capillaries increase the surface area for the exchange of gases.

(1) What are the different ways in which glucose is oxidised to provide energy in various organisms?

Ans. There are two different ways in which the glucose is oxidised to provide energy in various organisms: aerobic and anaerobic respiration.

(2) What advantage over an aquatic organism does a terrestrial organism have with regard to obtaining oxygen for respiration?

Ans. The aquatic organism use the oxygen dissolved in water for carrying out respiration. The amount of oxygen in water is however limited. The terrestrial organisms take oxygen from air which contains higher amount of oxygen. Thus, a terrestrial organism has an advantage over an aquatic organism in regard to obtaining oxygen.

(3) Why is the trachea provided

With Cartilaginous rings ?

The Trachea is provided with Cartilaginous rings to ~~be~~ because the Cartilaginous ring prevents the Trachea from collapsing during breathing in and out. It also play an important role for supporting the outer walls of the Trachea.