

1° Discuss the advantages & disadvantages of a closed circulatory system.

Advantages :-

- 1° The blood transfers faster in the closed system, thus oxygen, nutrients, & waste transport fast also.
- 2° Specialized cells help carry nutrients.
- 3° The blood and the tissue fluid are distinguished easily.

Disadvantages :-

- 1° more complex than the open circulatory system
- 2° It requires more energy for blood distribution.

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The digestive system of human is intermediate between that of strict carnivores and that of strict herbivorous. How might you expect your digestive system to be different if we had fed exclusively on plant tissues through our evolutionary history?

Ans

* The digestive system of human beings is intermediate between herbivorous & the carnivores.

* So, the digestive system in human beings would have certain features.

(i) The teeth of herbivorous are flatter and have apparently less sharpness to them in comparison to carnivores who have pointed teeth for tearing flesh. Therefore, the teeth of human beings would be more like herbivores rather than having sharp canines.

(ii)

The carnivorous animals have more acidic stomach for better digestion of proteins, than herbivorous. So, humans eating only plant products would have less acid in their stomach.

(iii)

Some herbivores have special bacteria in their gut for digesting cellulose out of plant goods. This might have been present in humans before evolving into omnivore.

(iv)

Herbivores pass energy from the plant products that they eat and carnivores get the energy from herbivores. So it is clear.

3: Explain why we become warm during exercise and explain the usefulness of shivering when it's cold!

Ans =

Body heat is increased with exercise because ~~you~~ when our body is active, our heart rate is increasing and as a result our body sweats which is our way of cooling ourselves down. As our body absorbs sweat we produce, it will result in releasing heat thus keeping the body warm.

We shiver when we are cold because our body needs to keep a core temp of 98.6°F to prevent hypothermia. If the surface of our skin gets too chilly, skin receptors send signals to the brain, which awakes our body about feeling cold and thus we shiver.

Q: State whether the following is true or false?

(a) The loss of water vapour by plants is called transpiration.

Ans True.

(b) Translocation is the transportation of products of photosynthesis.

Ans True.

(c) Thinning of inner walls of guard cells, opens the stomata.

Ans True.

(d) Arteries are the widest blood vessels.

Ans True.

(e) Bowman's capsule is found in heart.

Ans False.