

① Discuss the Advantages and Disadvantages of a closed circulatory system.

Ans- Advantages of closed circulatory system :-

- (i) Provides more power in the form of pressure.
- (ii) The lymphatic system works separately.
- (iii) It is efficient in delivering oxygen throughout an organism.

Disadvantages of closed circulatory system :-

- (i) It is more complex than the open circulatory system.
- (ii) Requires more energy for blood distribution.

(2)

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

Ans - The primary food source of herbivores is almost exclusively plants.

* so, we would have several stomach chambers and that comparatively longer digestive tract than the present digestive tract we have.

* If we had fed exclusively on plants, then we must be having special designed teeth. Just like cows have large, flat teeth that are capable of grinding up plant material.

* since plant matter is rich in carbohydrates & coarse fibre,

herbivores have amylase in their saliva to help break ^{them} down unless human beings (they ~~rely~~ rely on their pancreas to digest carbohydrates)

③ Explain why we become warm during exercise & explain the usefulness of shivering when it is cold.

Ans- The body heat increase while exercising because our body is being active, our heat rate increases, as a result the body will sweat which is a way of cooling ourselves down. As our body absorbs the sweat we produce and that will result in releasing heat, hence keeping the body warm.

* while shivering the skeletal muscles begin to shake in small ~~amount~~ movement, creating warmth by expending energy.

So, when the body temp drops, shivering helps to raise body temperature.

(4) state whether True or false.

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

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

(c) stretching of inner wall of guard cells open the stomata. T

(d) Arteries are the widest blood vessels. T

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