

## HOMEWORK

Q) Discuss the advantages and disadvantages of a closed circulatory system?

Ans- Advantages

- \* It is efficient in delivering oxygen throughout an organism.
- \* It provides more power in the form of pressure.
- \* It has a lymphatic system that works separately.

Disadvantages

- \* It is more complex than the open circulatory system.
- \* It 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 digestive system to be different if we have fed exclusively on plant tissues through out our evolutionary history?

Ans - Humans have digestive system which is capable of digesting both plant and animal products. But if specifically we have to feed on plant tissues then our digestive system would be similar to herbivore animals. Our digestive system would have more water for break down of cellulose. We would have a longer digestive system in order to thoroughly break down plant matter. The caecum would have been more well developed with appendix.

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

Ans - Our body heat is increased with exercise because our body is being active.

Our body will start releasing sweat. Our body will absorb it and release heat.

Nerve impulses are sent by hypothalamus to skeletal muscles to bring about rapid contractions that generate heat. Shivering therefore helps to raise the body temperature. Increase in metabolic rate.

1) State whether the following are true or false.

(a) Loss of water vapour by a plant is called transpiration. **True**

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

(c) Stretching the inner wall of guard cells open the stomata. ~~False~~ **True**

(d) Arteries are the widest blood vessels. **True**

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