

## Brevetises

1. The kidneys in human beings are a part of system for  
(ii) excretion
2. The xylem in plants are responsible for  
(i) transport of water
3. The autotrophic mode of nutrition requires  
(iv) all of the above
4. The breakdown of pyruvate to give  $CO_2$ , water and energy takes place in  
(ii) mitochondria
5. How are fats digested in our bodies? where does this process take place?

Digestion of fats takes place in small intestine.

Bile juices secreted by liver poured in the intestine along with pancreatic juices.

The bile salts present in bile juice emulsify large globules of fats

Fats  $\xrightarrow{\text{emulsified by bile salts}}$  Emulsified fats  $\xrightarrow{\text{pancreatic lipase}}$  Breakdown of fats  $\xrightarrow{\text{intestinal juice}}$  fatty acids + Glycerol

6. what is the role of saliva in the digestion of food?

saliva keeps mouth cavity clean and moistens the food that help in chewing gum.

saliva contains salivary amylase enzyme that breaks down starch into sugars like maltose.

starch + salivary amylase  $\rightarrow$  Maltose

7. what are the necessary conditions for autotrophic nutrition and what are its by products?

(a) presence of sunlight and chlorophyll

(ii) supply of water and  $\text{CO}_2$  in sufficient amount

By product of autotrophic nutrition is oxygen.

8. what are the differences between aerobic, anaerobic respiration?

### Aerobic Respiration

- $\rightarrow$  takes place in presence of  $\text{O}_2$
- $\rightarrow$  complete breakdown of food.
- $\rightarrow$  end product -  $\text{CO}_2$  and  $\text{H}_2\text{O}$

### Anaerobic Respiration

- $\rightarrow$  takes place in absence of  $\text{O}_2$
- $\rightarrow$  partial breakdown of food
- $\rightarrow$  end product - ethanol, lactic acid or  $\text{CO}_2$  in plants

How are the alveoli designed to maximise the exchange of gases?

- i) Alveoli are thin walled and richly supplied with a network of blood vessels to facilitate exchange of gases between blood and air filled in alveoli.
- ii) Alveoli have balloon like structure which provide max. surface for exchange of gases.

Q. What would be the consequences of a deficiency of haemoglobin in our bodies?

Due to the deficiency of haemoglobin in blood, its oxygen carrying capacity decreases. Production of energy by oxidation will be slower. One would fall sick and feel fatigue most of the time.