5. How are fats digested in our bodies? Where does this process take place?

Ans Fats are present in the form of large globules in the small intestine. The small intestine gets the secretions in the form of bile juice and pancreatic juice respectively from the liver and the pancreas. The bile salts break down the large fat globules into smaller globules so that the pancreatic ~~enzy~~ enzymes can easily act on them. This is called emulsification of fats. It takes place in small intestine.

6. What is the role of saliva?

Ans Saliva is secreted by the salivary glands, located under the tongue. It makes food soft for easy swallowing. It contains a digestive enzyme called salivary amylase, which breaks down starch into sugar.

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

Ans Autotrophic nutrition takes place in plants through the process of photosynthesis. Carbon dioxide, water, chlorophyll pigment and sunlight are necessary

conditions required for autotrophic nutrition. Carbohydrate (food) and O_2 (Oxygen) are the by-products.

8. What are the differences between aerobic and anaerobic respiration? Name some organisms that use the anaerobic mode of respiration.

Ans. Aerobic Respiration

- occurs in the presence of O_2
- involves exchange of gases between organism and the environment.
- occurs in cytoplasm and mitochondria
- always releases CO_2 and H_2O.
- yields large amount of energy.

Anaerobic respiration

- occurs in absence of O_2
- Exchange of gases is absent
- occurs only in cytoplasm
- produces alcohol and CO_2
- energy released is very low.

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

A The alveoli are the small balloon-like structures present in lungs. The walls of alveoli consist of extensive network of blood vessels. Each lungs contain 300-350 million alveoli, making a total of approximately 700 million in both lungs. The alveolar surface when spread out covers about 80 m² area. This large surface area makes the gaseous exchange more efficient.

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

A Haemoglobin in our body is the respiratory pigment that transports oxygen to blood cells for cellular respiration. Therefore, deficiency of haemoglobin in blood can affect the oxygen supplying capacity in blood. This can lead to deficiency of oxygen in blood cells. It can also lead to ~~disease~~ disease called anaemia.