

Food materials, as middle, as a middle man, to the body and other oxygen and brings hormones etc. Cell to blood and metabolic waste from the body venous system and finally pumps the same into

ii) A lymphocyte is a type of white blood cell that is a part of the immune system. There are two main types of lymphocytes: B cells and T cells. The B cell produce antibodies that are used to attack invading bacteria, viruses, and toxins.

Lymph	Blood
It is a colourless, fluid	It is a reddish coloured fluid
It is a part of the lymphatic system	It is a part of circulatory system
It helps in body to defences and is a part of immune system	It involves in the circulation of nutrients, hormones, oxygen and carbon dioxide waste, toxins

It contains plasma and  
a less number of WBC,  
and platelets

carries less oxygen and  
digested food

It contains plasma and  
WBC, and platelets

carries more oxygen and  
digested food

absorption of fats and fat soluble vitamins from the digestive system and the blood capillaries absorb most nutrients but fats and fat soluble vitamins are absorbed by lacteal.

(1) Living creature exercise themselves. Excretion is the removal of waste material arising from normal life process from the body. It is necessary to eliminate products such as carbon dioxide. They cause poisoning that slows down critical chemical reactions if they are left to accumulate.

(2) Rubber and spire are the two latex which is used for human work.

When the plant opens its stomata to let in carbon dioxide water on the surface of the cell of the spongy mesophyll and photosynthesis and diffuse out at the leaf. A continuous column

This process is called transpiration

Secondary metabolites, also called special metabolites, toxins, secondary products, or natural products are organic compounds produced by bacteria, fungi, or plants which are not directly involved in normal growth development of an organism.

(i) Peristalsis is a series of wave like muscle contractions that move food through the digestive tract. It starts in the esophagus where strong wave like motions of the smooth muscle move food to the stomach. The organ system involved includes esophagus, stomach, small intestine, large intestine.

(ii) Transport of soluble product of photosynthesis in food from leaves to other parts of plants is called translocation. Food molecules enter

tube where they can be transported  
upwards or downwards, to all the parts of  
the plant including roots.

(iii) Breathing cycle is a rhythmic process  
because contraction and relaxation of  
chest fibres take place during breathing. But  
exchange of gases is a continuous process  
because it never stops. It takes place  
all the time.

(iv) A nephron A nephron is the basic  
structural and functional unit of kidney.  
It regulates water and soluble  
substance in the blood by filtering the  
blood and absorbing what is needed  
and excreting the rest as urine.

(v) To avoid leakage blood has platelets  
which circulate through the body and  
stop the leakage by clotting the blood  
at the point of injury.

occurs in all living organism

The entire process occurs in mitochondria

Glucose and oxygen are the reactants of this process

(\*) Carbon dioxide and water are the by products and energy (ATP) is the by product

Undergoes catabolic process

occurs only in photosynthetic green plants, algae

The entire process occurs in chloroplasts,

Carbon dioxide, water and high energy are the reactants of the process

Glucose and oxygen and water are the by products

Undergoes anabolic process

(3) Amoeba feeds by holozoic mode of nutrition. It engulfs the food particles using pseudopodia. The process is called as phagocytosis.

The engulfed food gets enclosed inside food vacuole,

As the food vacuole passes through the cytoplasm, digestion and absorption and assimilation

take place

When the food vacuoles open to outside & egestion & undigestible food take place →

4) Dark reaction - It is a light independent reaction in which sugar molecules are formed from the  $\text{CO}_2$  and water molecules. The dark reaction occurs in the stroma of the chloroplast where they utilize the products of the light reaction.