

Worksheet

Life process

Case based question

i) i) How does lymph function as a middleman?
Lymph acts as middle man which transports food material, oxygen, hormones etc. to the body cells and brings CO_2 & other metabolic wastes from the body cells to blood.

ii) what are lymphocytes and why do we need them?

A lymphocyte is a type of white blood cell that is part of the immune system

we need them to protect against invading Bacteria, viruses & toxins.

iii) With respect to composition how is blood different from lymph?

Blood has RBC, WBC, platelets and a fluid

plasma whereas lymph has WBC & watery fluid.

iv) How does lymph help in fat absorption?
Lymph pick up the excess interstitial fluid and proteins and return ~~the~~ to the venous blood. The mucosa that lines the small intestine is covered with lacteal finger like projection called villi. The blood capillaries absorb nutrients, but the fats and fat soluble vitamins are absorbed by the lacteals.

2) i) why is excretion necessary in an organism?
It is necessary to eliminate waste product, like CO_2 . They may cause poisoning that slows down critical chemical reactions. if they are left - to accumulate.

ii) Name two ~~tree~~ latex. which is used for human welfare.
Rubber latex
Latex of sapota fruit.

iii) How does transpiration occur?

When the plant opens its stomata to let in carbon dioxide, water on the surface of the cells of the spongy mesophyll and palisade mesophyll evaporates and diffuses out the leaves. By this transpiration occurs.

iv) what are secondary metabolites?

Alkaloids, latex, tannins etc are secondary metabolites. Waste. ~~These are the~~

Two mark questions

1) Explain the significance of peristalsis in the process of digestion, which organ is involved in it?

Peristalsis is a series of wave like muscle contraction that move food through the digestive tract. The organ involved in it is oesophagus.

2) How does translocation take place in plants?

In translocation, food molecules enter the part of the phloem, called the sieve tubes where they can be transported upward or downward to all the parts of plant including roots.

3) 'Breathing cycle is rhythmic while gaseous exchange is a continuous process.' Justify

The breathing cycle involves inhalation and exhalation of air due to alternate expansion and contraction of thoracic cavity. Thus, it is a rhythmic process. But exchange of gases is a continuous process as it takes place between the blood and each and every cell, by diffusion.

4) Which is the functional unit of kidney? Explain regulation of urine formation.

A nephron is the functional unit of kidney. It regulates water and soluble substances by filtering the blood, reabsorbing what is needed and excreting the rest as urine.

5) Leakage of blood from the vessels reduce pumping efficiency. How?

Leakage of blood can be causing pumping efficiency because the blood will not reach to pump. So, pumping is not able to done.

Three marks question

1) How does blood.

a) Transport gases - The blood takes O_2 from lungs to the cell of the body for metabolism & the CO_2 produced is carried ~~back~~ back to lungs by blood.

b) Regulate the body temperature - The blood produces heat by the ~~leg~~ blood and cools down by liquid part, i.e., plasma.

2) Differentiate photosynthesis & respiration.

Photosynthesis	Respiration
<ul style="list-style-type: none"> Occurs only in plant and some photosynthetic bacteria 	<ul style="list-style-type: none"> Occurs in all living organisms.
<ul style="list-style-type: none"> Raw materials are CO_2 & water 	<ul style="list-style-type: none"> Uses carbohydrates or organic substances and O_2
<ul style="list-style-type: none"> Oxygen is liberated in this process and CO_2 is utilized 	<ul style="list-style-type: none"> Oxygen is utilized and CO_2 is released.

2a) ~~It~~ Helps in body defence - The blood contain blood platelets which heal the damaged part of the vessels and stops bleeding

3) Explain nutrition in Amoeba.

Ingestion - The process the food is taken inside through mouth and broken down

by teeth and initial digestion takes place in the mouth by saliva.

o Digestion - The process in which food is digested by using few enzymes and are used by the cells. ~~to~~ for producing energy

o Absorption - The process which cells use the energy from the digested food and helps in building tissue in our body.

o Egestion - The process in which undigested food is removed out from the body through excretion.

4) What is dark reaction? where does it occur?
write its chemical reaction:

Dark reaction is a light independent process in which sugar molecules are formed from the carbon dioxide & water molecules.

It occurs in the stroma of the chloroplasts

where they utilize the products of the light reaction.

