

17/7/21

Bio HW

- 1) a) Lymph acts as a middle man which transports food materials, O_2 , hormones to cells and brings CO_2 & other metabolic wastes from cells to vein.
- b) Lymphocyte is a type of WBC. It helps in the immune system of body. It mainly has 2 types B-lymphocytes (antibody) & T-lymphocyte (support).
- c) Blood has platelets, RBC, Plasma & WBC whereas lymph has WBC & a watery fluid.
- d) As fat molecules are large, they can't be absorbed into blood so lymph absorbs fats and transports it.
- 2) a) Metabolic wastes & CO_2 should be eliminated or else it would accumulate in human body causing poisoning & slowing down of other chemical reaction in body.
- b) Chiche, Gutta Percha
- c) When the plant opens stomata the water in the leaves diffuses out, this process is termed as

transpiration.

d) Secondary metabolites are secondary products, toxins, metabolite, organic compound produced by all living beings which aren't directly help in growth, dev, reproduction of organism.

3- Peristalsis is a series of wave like muscle contractions that moved food through the digestive tract. It starts in the oesophagus where strongy wave like motions of the smooth muscle move balls of swallowed food to stomach.

4- Transport of soluble product of photosynthesis of food from leaves to other parts of a plant is called translocation. For translocation, food molec enter the part of the phloem called the sieve tubes. Where the food is transported upwards & downwards to all parts of body.

5- The breathing cycle involves inhalation & exhalation due to alternate expansion and contraction of thoracic cavity. Thus it is a rhythmic process. But exchange is a continuous process.

as it takes place between the blood and each and every cell of human body, by diffusion.

6) Nephron is the functional unit of a kidney.

b) Urine formation is done by 3 parts of a nephron, they are glomerulus (does ultrafiltration); PCT (reabsorption of imp minerals and H_2O); Waste Ions & H^+ ions from blood complete ~~the~~ formation of urine. But the hormone that controls the amount of Reabsorption in PCT & DCT is the ADH (Anti Diuretic Hormone).

7) Leakage of blood from vessels results in decrease in blood pressure which leads to decrease in blood supply to all cells of body so energy formation is decreased and eventually with time death may occur if the leak in vessel isn't treated.

8) Blood transport gases by diffusion.

b) By stabilizing pH, temperature balance, osmotic pressure and elimination of excess heat, blood maintains / regulates body temp.

c) Blood has WBC in it, which make a great amount of part in our immune system because it has phagocytotic cells ~~with~~ which can kill bacteria.

-a.

<p>9. <u>Photosynthesis</u> Respiration</p>	<p><u>Respiration</u> Photosynthesis</p>
<p>⇒ Occurs in only some photosynthetic bacteria and plants.</p>	<p>⇒ Occurs in all living organisms.</p>
<p>⇒ Occurs in chloroplast only under sunlight</p>	<p>⇒ Occurs in cytoplasm and mitochondria and don't depend on anything.</p>
<p>⇒ Reactants / Raw material are CO_2 & H_2O</p>	<p>⇒ Uses carbohydrate & other organic compound with oxygen.</p>
<p>⇒ Energy is stored in form of chemical energy</p>	<p>⇒ Energy is liberated in form of ATP.</p>

10. Amoeba shows holozoic mode of nutrition which includes →

- ⇒ Ingestion - With help of pseudopodia, it traps food particles and take it into the body.
- ⇒ Digestion → Amoeba makes food vacuole after ingesting food particle. Enzymes are released in food vacuole for digestion.
- ⇒ Absorption → Nutrients after digestion enters cytoplasm by osmosis.
- ⇒ Assimilation - Nutrients are utilized by cell for various purposes.
- ⇒ Egestion - The waste products enclosed in a vacuole goes to the cell membrane which opens and all toxins are released from Amoeba's body.

11 * Dark Reaction is a Carbon Fixing method in which carbohydrates are formed from the CO_2 and H_2O molecules.

→ In it, ATP & NADPH formed during light-rxn drives the rxn and converts 6 molecules of CO_2 into 1 sugar molecule (ex = Glucose).

* → It occurs in stroma of chloroplast.

