

## Life processes

Q (i) How does lymph function as a middle man?

ans- Lymph acts as middle man which transports food material, oxygen, hormones etc to the body cells and brings carbon dioxide and other metabolic wastes from the body cells of blood.

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

ans- A lymphocyte is a type of white blood cell that is part of the immune system. produce antibodies that are used to attack invading bacteria, viruses and toxins.

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

ans- Blood contains red blood cells, white blood cells, platelets and plasma, which constitutes water, proteins, hormones,  $O_2$ ,  $CO_2$ , glucose, salt, enzymes, where as lymph is clear to white fluid tissue which is composed of lymphocytes and white blood cells.

Q) How does lymph helps in fat absorption?

ans- lymph capillaries pick up the excess interstitial fluid and proteins and return them to the ~~blood~~ venous blood. The blood capillaries absorb most nutrients, but the fats and fat soluble vitamins are absorbed by the lacteal.

renal tubule. The filtered fluid is called as the glomerular fluid. When the filtrate containing useful substances as well as the waste substances passes through the tubule the useful substances as well as the waste substances get reabsorbed into the blood through blood capillaries surrounding the tubule. Certain substances which are harmful and not needed by the body like urea, remain behind in the tubule. This yellowish liquid formed is called as urine.

(A) Leakage of blood from the vessels reduce pumping efficiency. how?

- ans -
- \* Eating less amount of sugar and artificial sweeteners.
  - \* Perform vigorous exercise to improve the circulation of blood.

### 3 mark questions

- 1) How does blood
- transport gases
  - regulate body temperature
  - helps in body defence.

ans - (a) Oxygen enters the blood from the lungs and  $\text{CO}_2$  is expelled out of the blood into the lungs. The blood transports both  $\text{CO}_2$  and  $\text{O}_2$ . Oxygen is carried to the cells.  $\text{CO}_2$  is carried away from the cells. Oxygen inhaled into the lungs binds to haemoglobin of the blood which flows through the lungs.

(b) Blood distributes heat throughout the body. When the body temperature is too high, the hypothalamus sends an impulse to the blood vessels then carry more blood to the sweat glands to produce more sweat and because the superficial blood vessels are wider, more heat is lost through conduction.

(c) WBC move through blood and tissue throughout your body, looking for foreign invaders such as bacteria, viruses, parasites, and fungi. When they find them, they start an immune attack.

Difference between photosynthesis and respiration

ans.

### Respiration

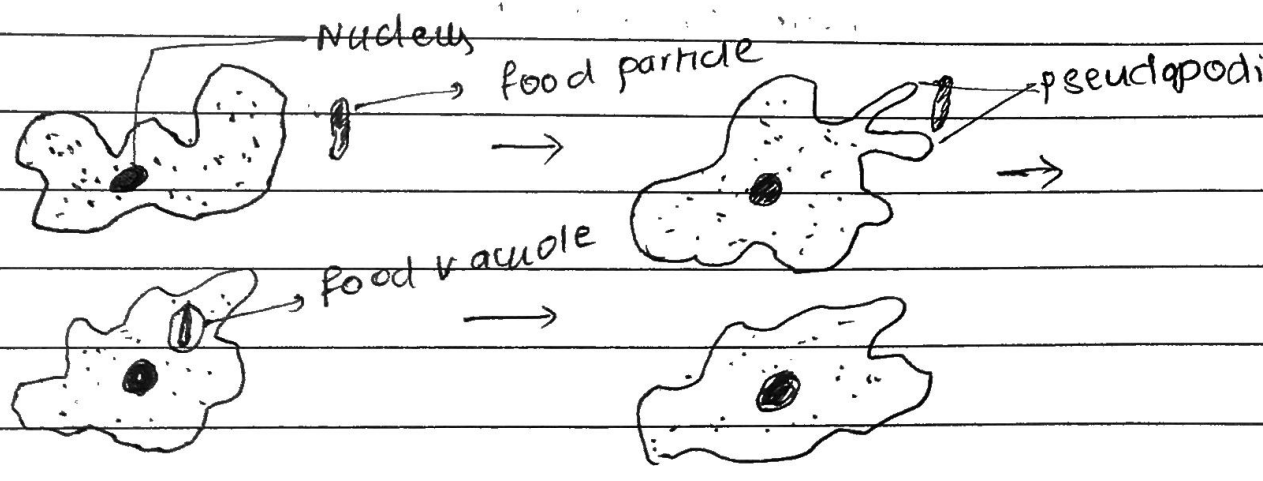
- It occurs in all living organism
- It takes place throughout the day.
- It uses organic substances or carbohydrate

### Photosynthesis

- It occurs only in plants and some photosynthetic bacteria
- It takes place in the presence of sunlight
- It uses  $CO_2$  and water

3. Explain the nutrition in amoeba.

ans. The Amoeba takes in food using temporary finger like structure called as pseudopodia. The food when enters the body, forms a food vacuole, in the food vacuole complex molecules are broken into simpler ones which diffuses into the cytoplasm. The remaining undigested food is thrown out of the body.



(4) What is Dark reaction? Where does it occur?  
Write the chemical reaction.

ans Dark reaction is also called the carbon fixing reaction. It does not require light, in this process sugar molecules are formed from water and  $\text{CO}_2$ .

It occurs in the stroma of chloroplast.

