

13/5/21

Homework

Q1) Write four points of difference between aerobic and anaerobic respiration.

Ans) Aerobic Respiration | Anaerobic Respiration

★ It takes place in the presence of oxygen. | It takes place in absence of oxygen.

★ In aerobic respiration, complete oxidation of glucose takes place. | In this respiration, the glucose molecule is incompletely oxidised.

★ End products are CO_2 and H_2O | End ^{products} either are either ethyl alcohol or lactic acid and CO_2

★ Lot of energy is liberated (38 ATP). | Relatively small energy is liberated (2 ATP)

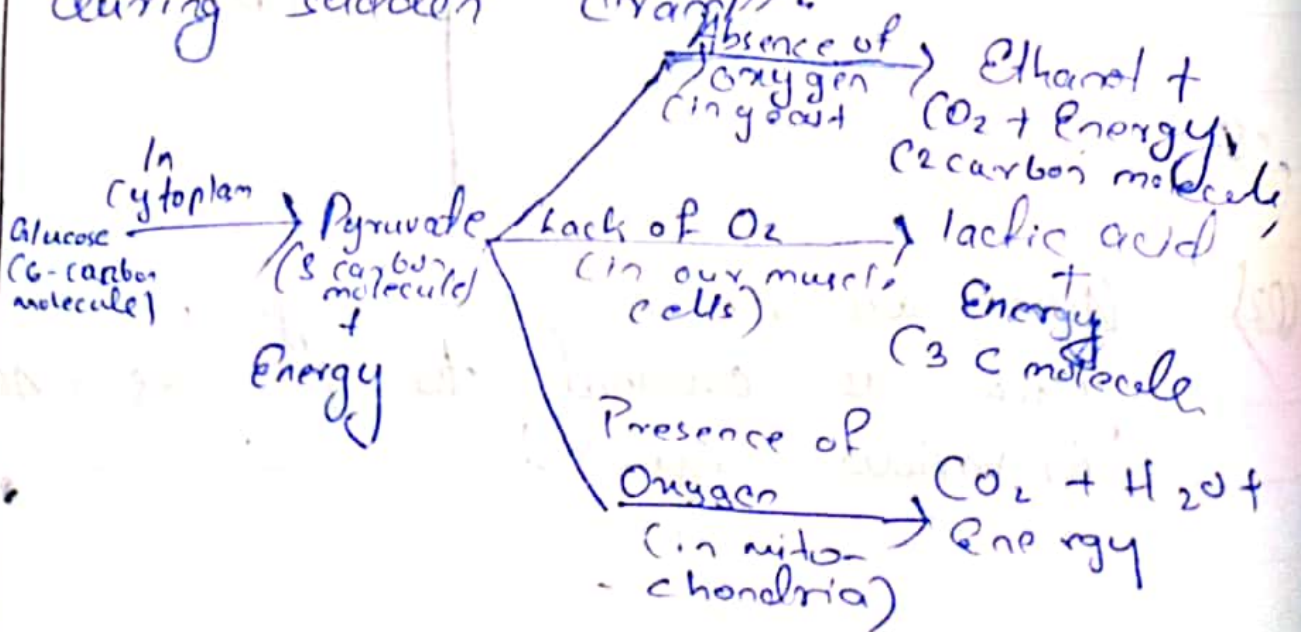
Q2) What are the different ways in which glucose is oxidised to provide energy in various organisms?

Ans ->

Diverse organisms do respiration in different ways - some use oxygen to break down glucose and some ~~don't~~ break down glucose without the use of glucose.

The process which includes oxygen is called as Aerobic respiration and the process which do not use oxygen is known as Anaerobic respiration.

In all cases, the 1st ~~case~~ step is the break down of glucose, a six carbon molecule, into three-carbon molecule called pyruvate. This can be seen ~~in~~ in the cytoplasm. Further ethanol is converted into ethanol and CO_2 . This process can be seen in yeast. This process also build up lactic acid in our muscles during sudden cramps.



Q3) Name some anaerobic organisms who use anaerobic mode of respiration.

Ans) Some ^{organisms} ~~animals~~ who use anaerobic respiration
→ Yeast, Human (muscle cells), bacteria etc.