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The whole process of break down of glucose is shown below:

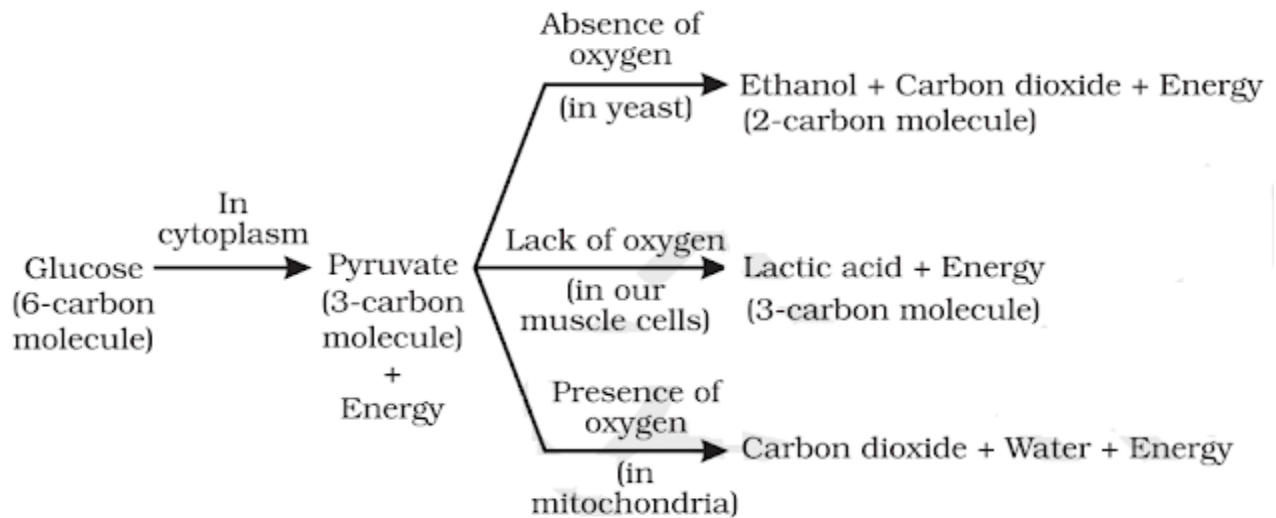


Fig: Break-down of glucose by various pathways

→ The energy released during cellular respiration is immediately used to synthesise a molecule called ATP which is used to fuel all other activities in the cell. In these processes, ATP is broken down giving rise to a fixed amount of energy which can drive the endothermic reactions taking place in the cell.

→ The rate of breathing in aquatic organisms is much faster than that seen in terrestrial organisms because the amount of dissolved oxygen is fairly low compared to the amount of oxygen in the air.

• Types of Respiration

Aerobic Respiration	Anaerobic Respiration
Takes place in the presence of oxygen.	Takes place in the absence of oxygen.
Occurs in mitochondria.	Occurs in cytoplasm.
End products are CO ₂ and H ₂ O.	End products are alcohol or lactic acid.
More amount of energy is released.	Less amount of energy is released.