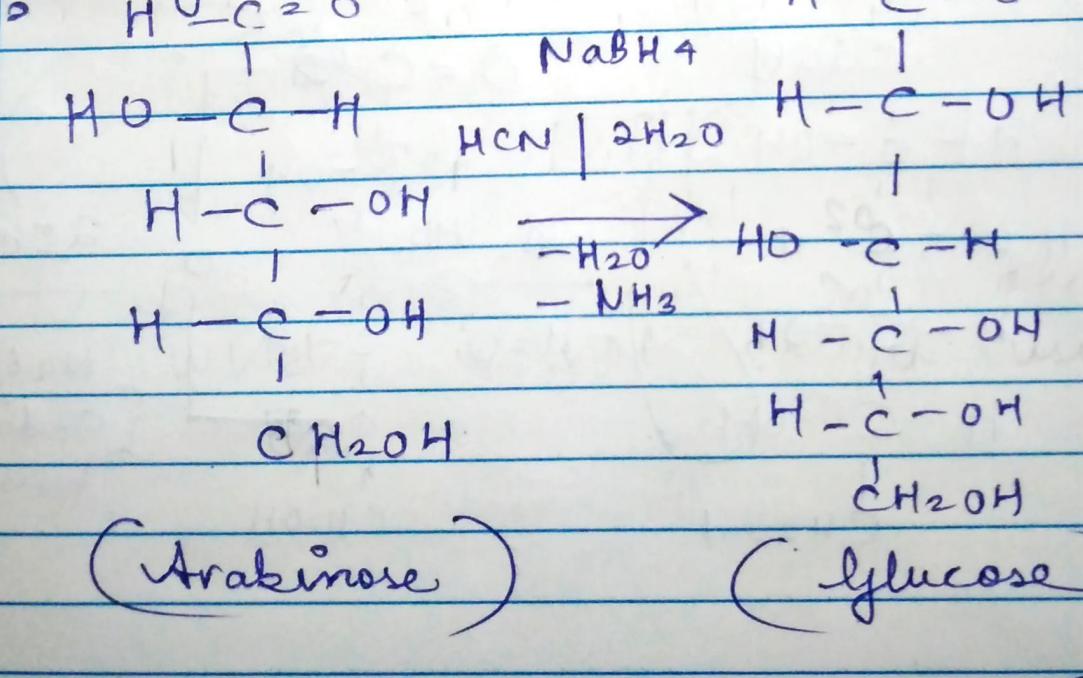
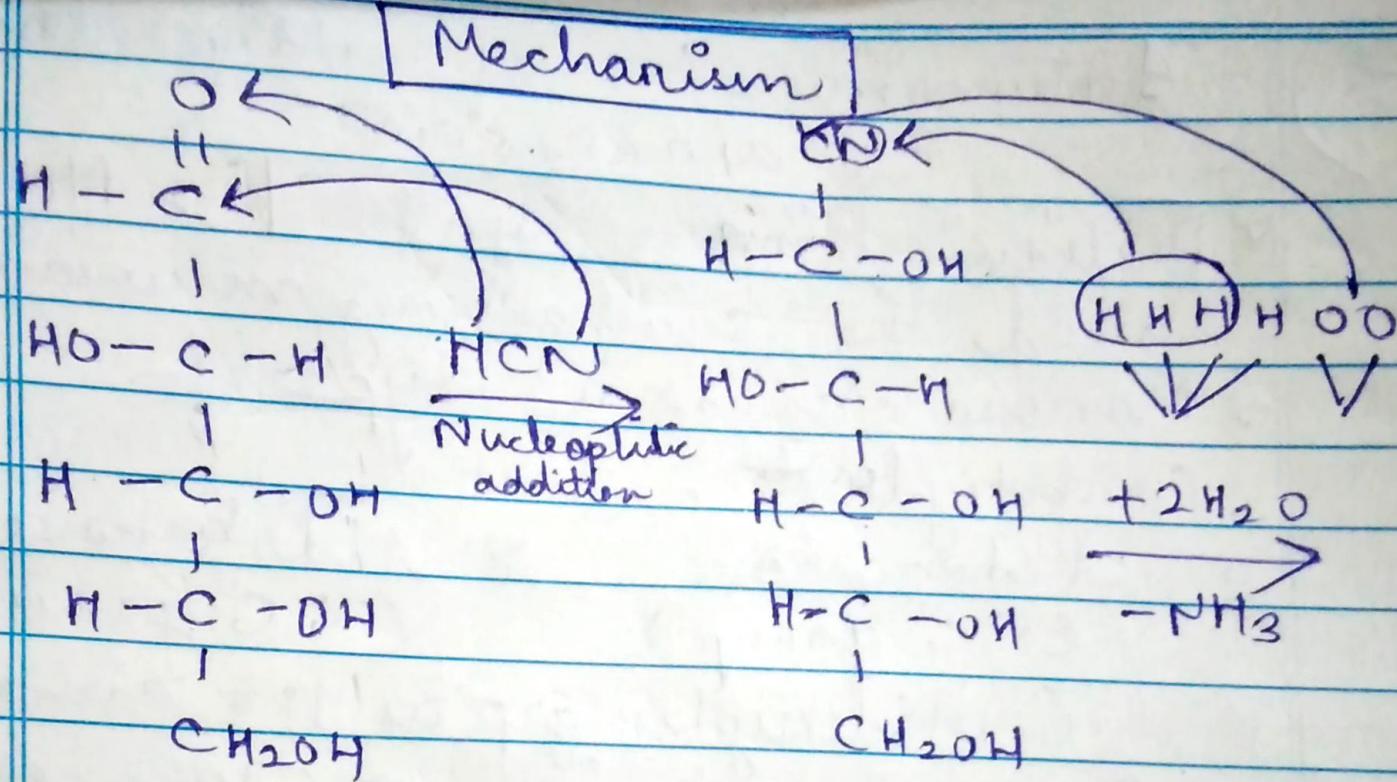


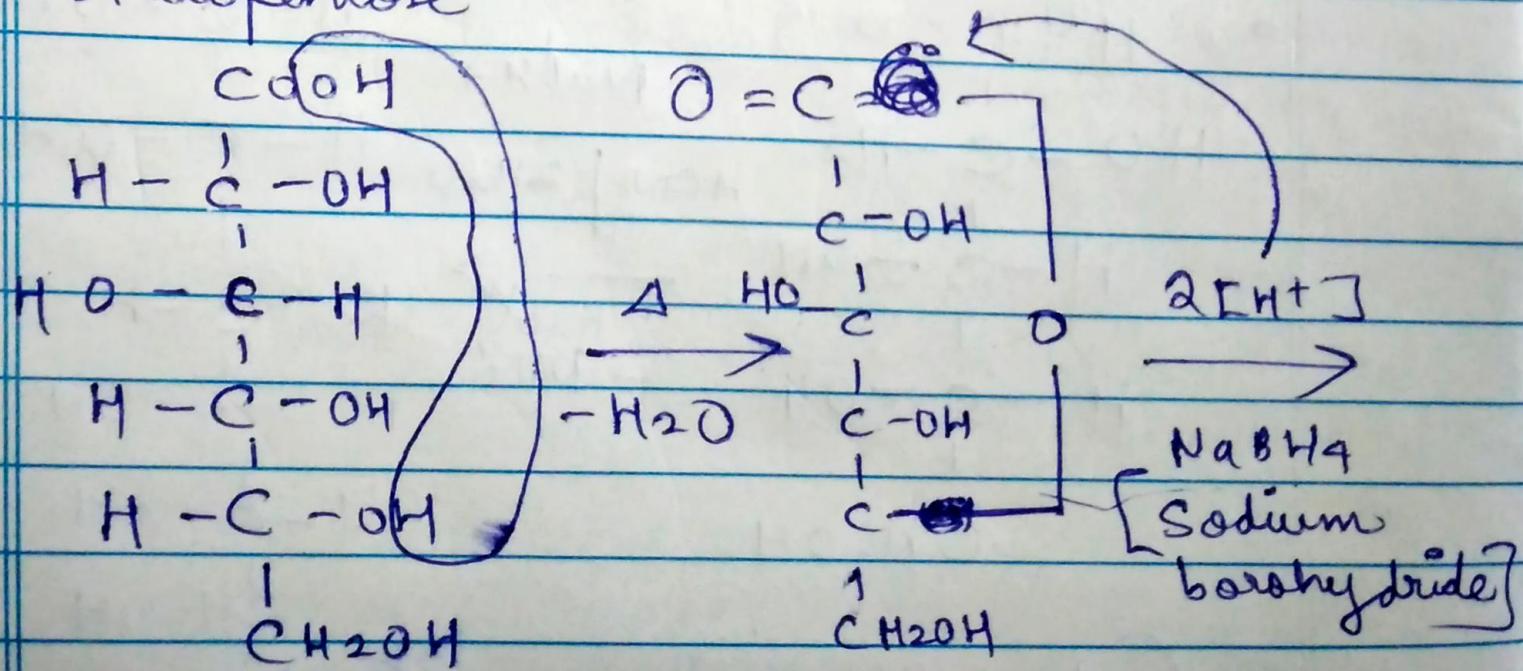
A blue five-pointed star logo, part of the UNHCR emblem.

Interconversion of aldopentose to aldohexose

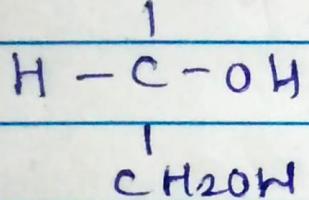
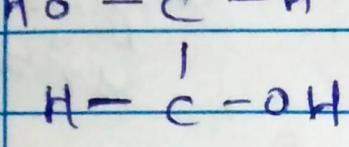
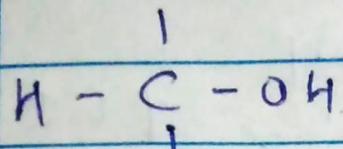




Aldopentose



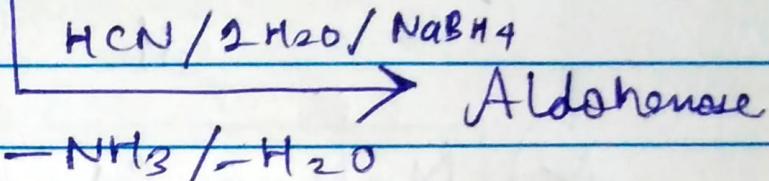
CHO



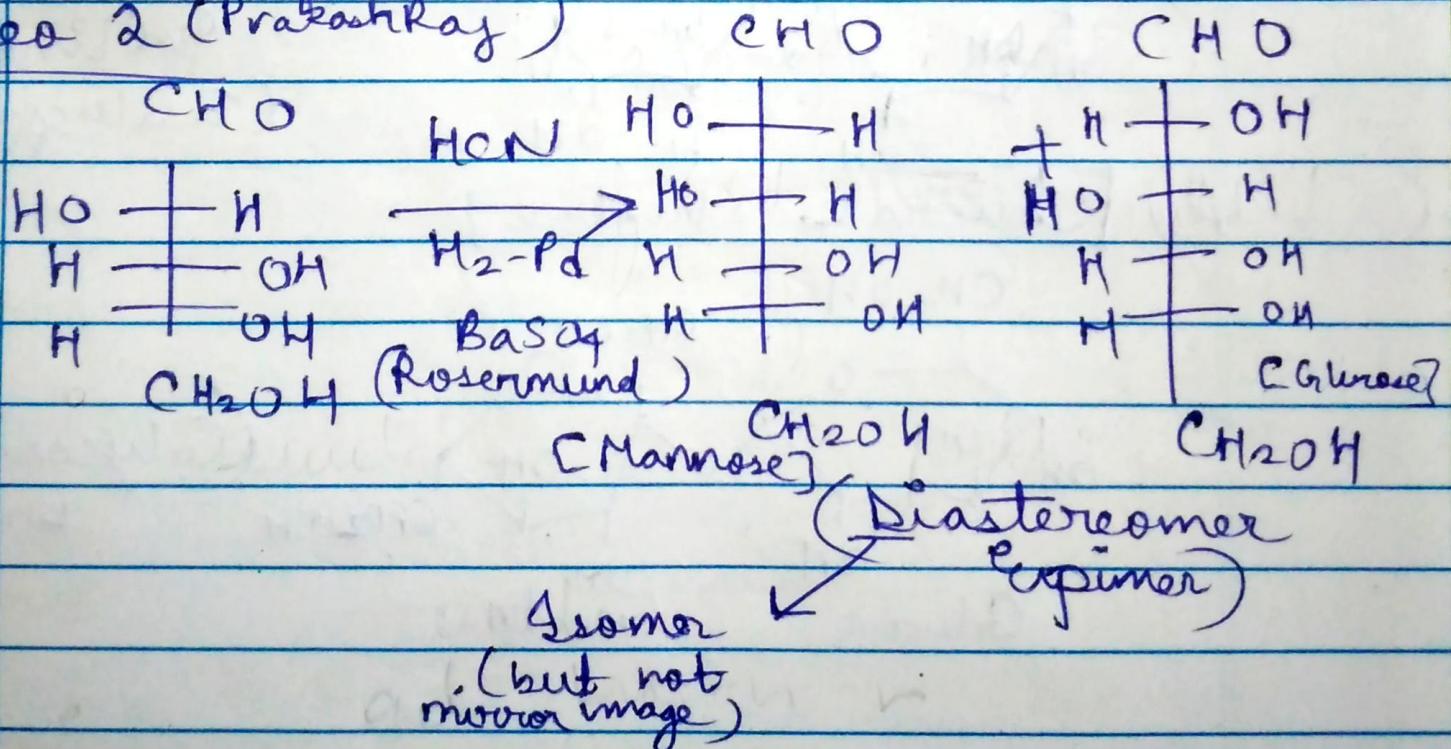
Aldohexose

Summary

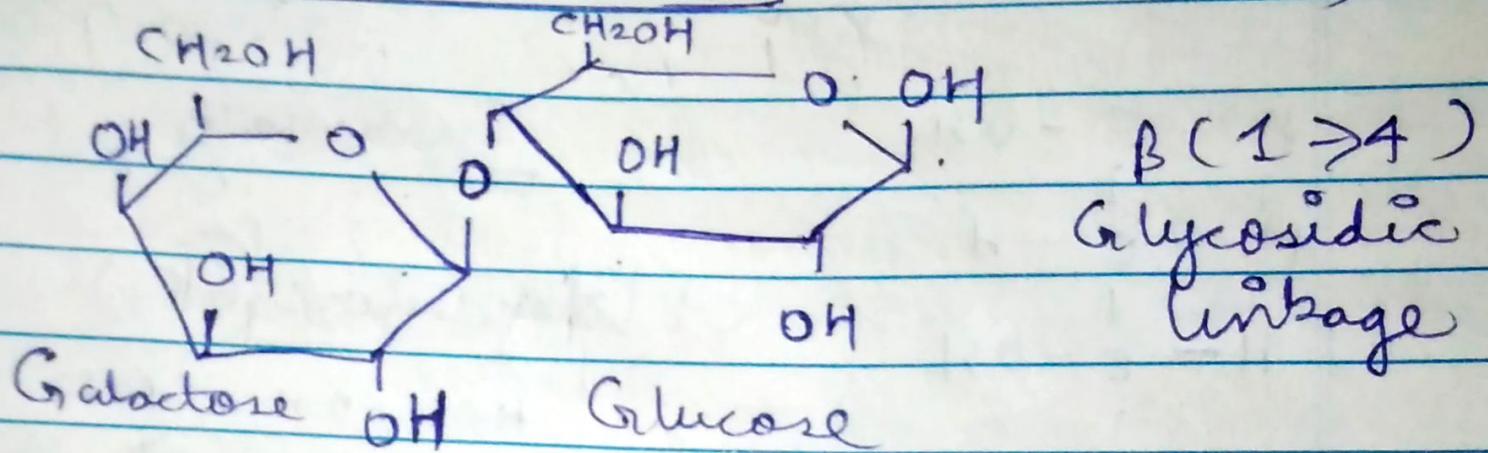
A hexopentose (6C)



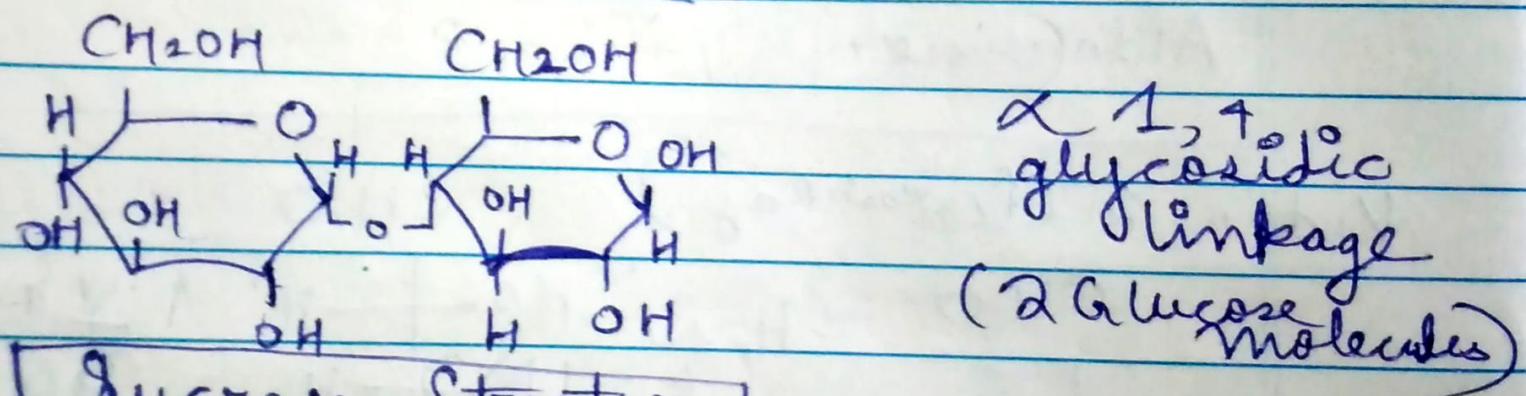
Video 2 (PrakashRaj)



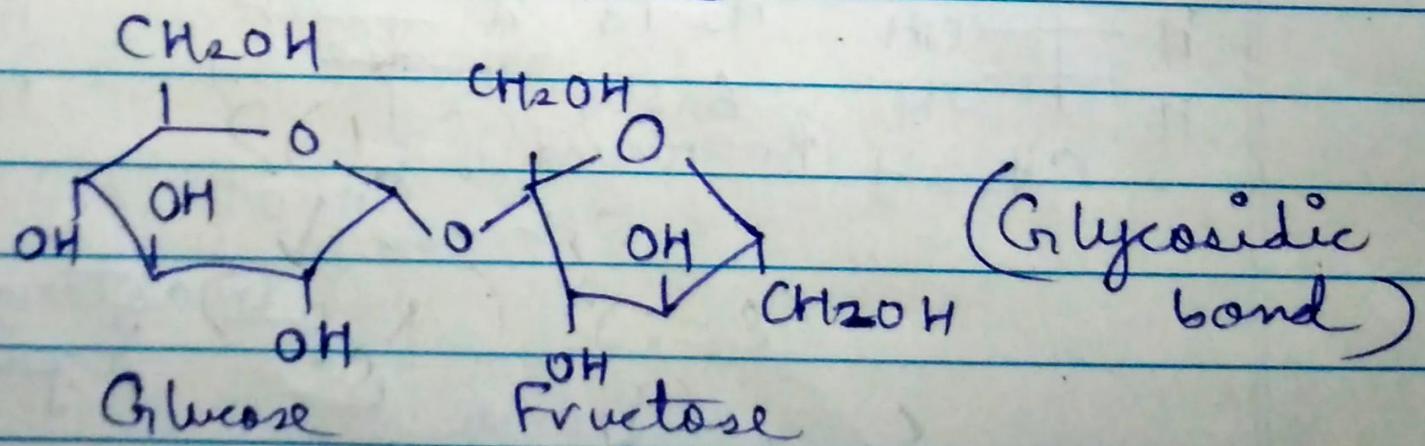
* Lactose Structure (Disaccharides)



* Maltose Structure



* Sucrose Structure



Glycolysis → Process of converting glucose into pyruvate.

Glucose

↓ Hexokinase

①

Glucose - 6-phosphate

↓ L Phosphoglucomutase

Fructose - 6-phosphate

↓ Phosphofructokinase - I

②

Fructose 1,6-biphosphate

Aldolase

③

Phosphate isomerase

Glyceraldehyde

Dihydroxyacetone phosphate

3-phosphate
(2 molecules)

↓ Glyceraldehyde 3-phosphate

④

↓ Dihydrogenase

1,3-Bisphosphoglycerate

⑤

↓ Phosphoglycerate kinase

3-Phosphoglycerate

⑥

↓ Phosphoglycerate mutase

2-Phosphoglycerate

↓ Enolase

⑦

Phosphoenolpyruvate

↓ Pyruvate kinase

⑧

Pyruvate

} Preparatory Phase

(Use ATP)

} Reproductive phase

(Produce ATP)

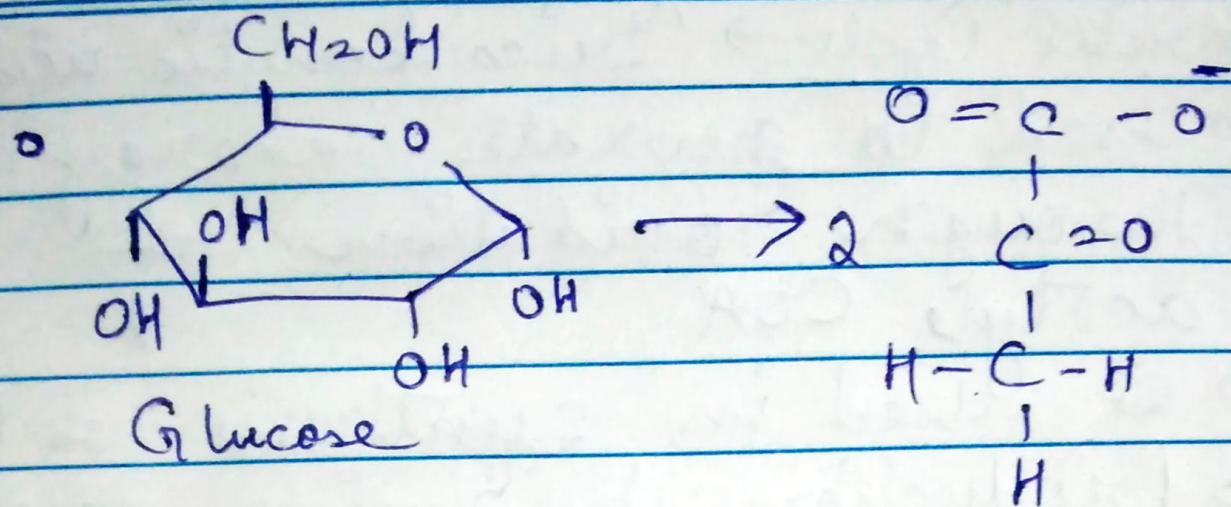
- Phosphofructokinase acts as [pacemaker] enzyme.
Steps:-

Fructose 6-phosphate

↓ Phosphofructokinase-1

Fructose 1,6-bisphosphate

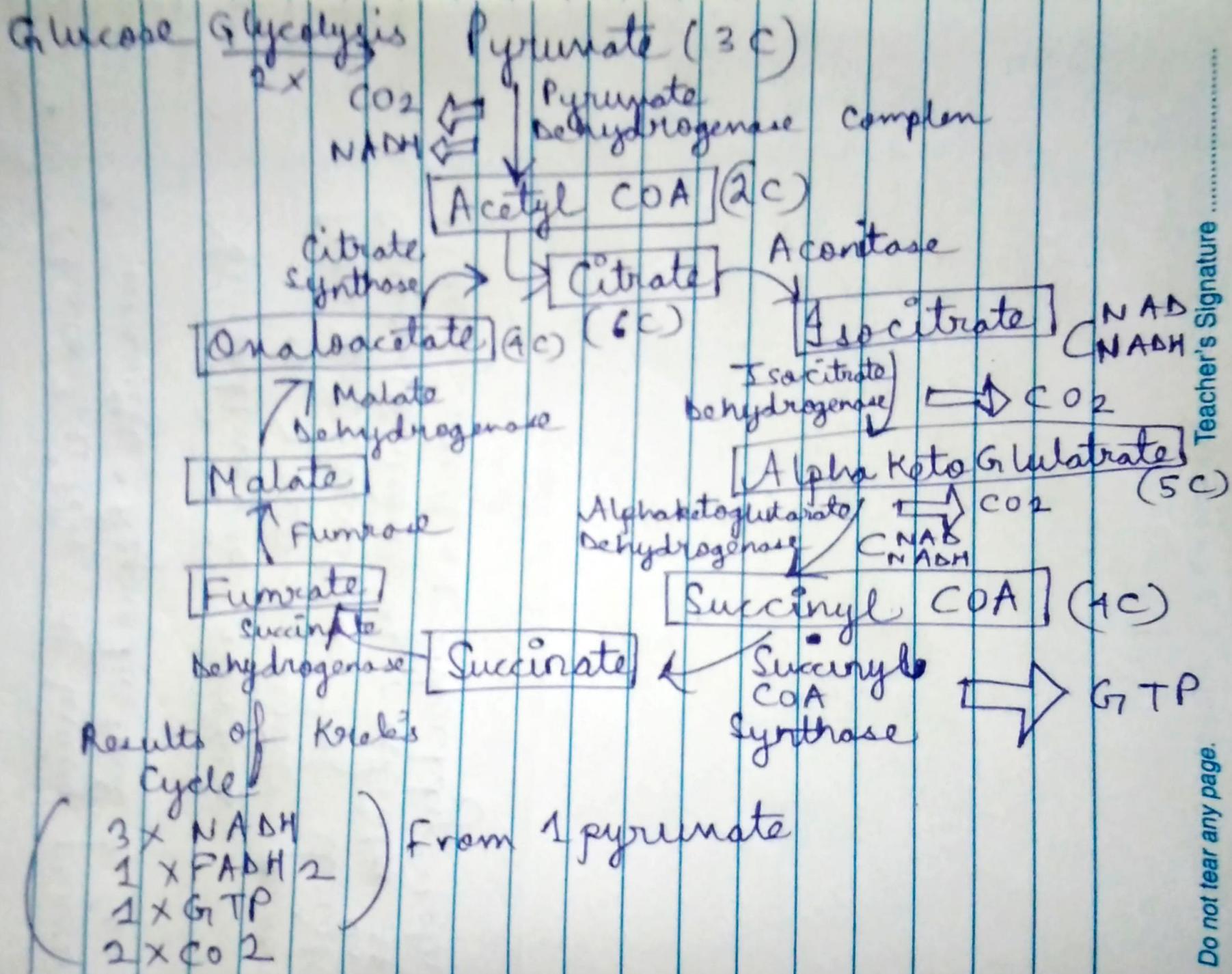
- 1st phase of Glycolysis →
Energy investment phase
- 2nd phase of Glycolysis →
Energy generation phase
- Glycolysis takes place in cytoplasm.
- Anaerobic process (does not require oxygen)



- In 1st step, ATP is consumed
- In 2nd phase, ATP is produced.

Krebs Cycle → Tricarboxylic acid cycles

- Used to generate energy through oxidation of acetyl COA
- Used in synthesis of NADH
- Production of amino acids
- Takes place in :-
 - mitochondria of eukaryotes
 - cytosol of prokaryotes



Characteristics of living process:

- Growth ◦ Reproduction ◦ Secretion

Turbidimetric analysis

- Scattered light procedure
for determination of weight
concentration of particles in
cloudy, dull or muddy solutions.