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Dept: → Allied health sciences

Paper: → Biochemistry

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Discipline: BS Radiology (4th

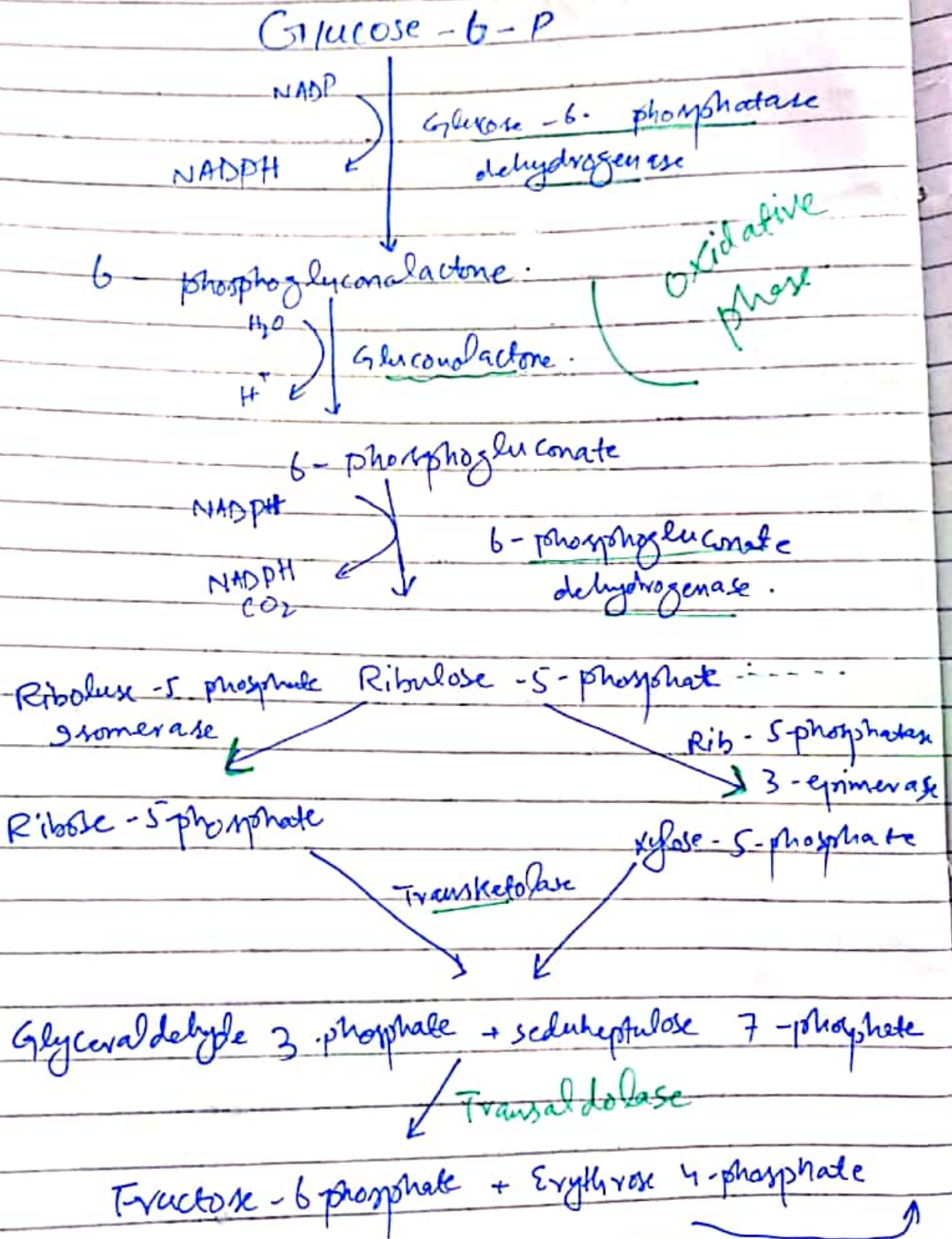
Semester)

(1)

Q NO 1:

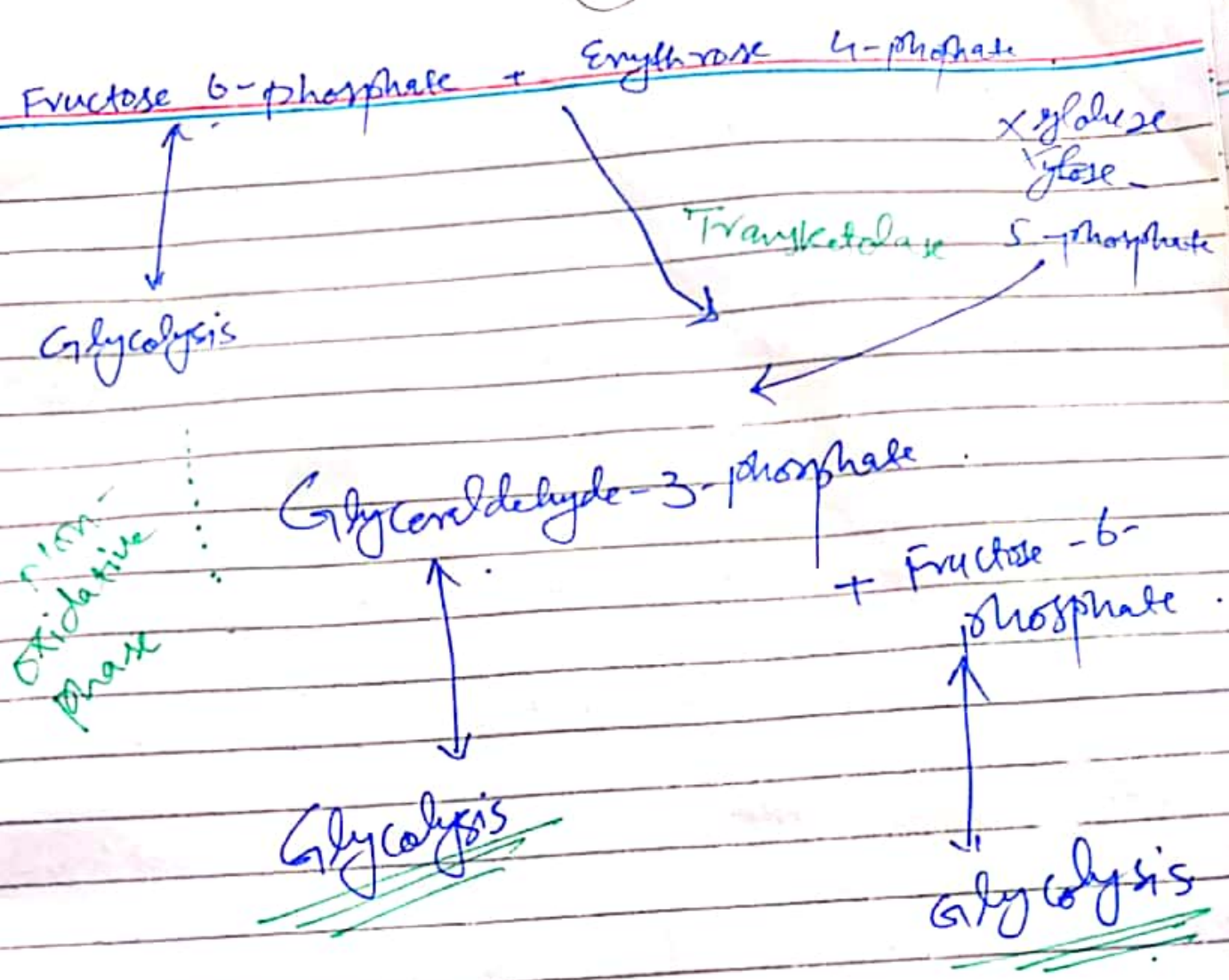
ANS:

pentose phosphate pathway.



(To be Continued)

(2)



Explanation: →

is a process of the pentose phosphate pathway that produces NADPH as reducing equivalents and pentose as essential parts of nucleotides. One is irreversible oxidative phase in which glucose 6-P is converted to ribulose 5-phosphate by oxidative decarboxylation and NADPH is generated.

(3)

Q 2: Ans Balanced Diet: →.

A diet consisting of a variety of different types of food and providing adequate amounts of the nutrients necessary for good health.

Explanation: A balanced diet includes:

Plenty of fruits & vegetables, starchy foods, including bread, rice, pasta, grains & potatoes. Non-dairy protein, including fish, pulses, nuts, eggs and meat. Milk and other dairy foods. Fat & sugar.

Major Food Groups

- | | |
|--------------------|-------------------------|
| (1) Carbohydrates | (2) protein |
| (3) Dairy products | (4) Fruits & vegetables |
| (5) Fats & sugars | (6) vitamins |
| (7) minerals | |

P.T.O

Benefits

Benefits of balanced Diet.

* Opting for a balanced, adequate and varied diet is an important step towards a happy and healthy lifestyle.

(*) vitamins and minerals in the diet are vital to boost immunity and healthy body.

(*) A healthy diet can protect the human body against certain types of diseases especially non-communicable diseases such as obesity, diabetes etc.

(*) A balanced diet supplies the nutrients your body needs to work effectively.

P.T.O

Q NO 3

(5)

Ans = Krebs' cycle :-

The citric acid cycle [CAC] - also known as TCA cycle (tricarboxylic acid cycle) or the Krebs' cycle; is a series of chemical reactions used by all aerobic organisms to release stored energy through the oxidation of acetyl-CoA derived from carbohydrates, fats and proteins.

In addition, the cycle provides the precursors of certain amino acids, as well as reducing agent NADH, that are used in numerous other reactions.

Importance Its main importance to many biochemical pathways suggests that it was one of earliest compounds of metabolism.

At least 3 segments of this cycle are being recognized.

P.T.O

6

The name of this metabolic pathway is derived from citric acid (also called citrate)

Ingredients produced: . It occurs in mitochondrial matrix and generates a pool of chemical energy (ATP, NADH + FADH₂) from the oxidation of pyruvate, the end product of glycolysis.

The NADH generated by citric acid cycle is fed into oxidative phosphorylation (electron transport) pathway. The net result of these two closely-linked pathways is the oxidation of nutrients to produce usable chemical energy in the form of ATP

The End.