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Sec = B

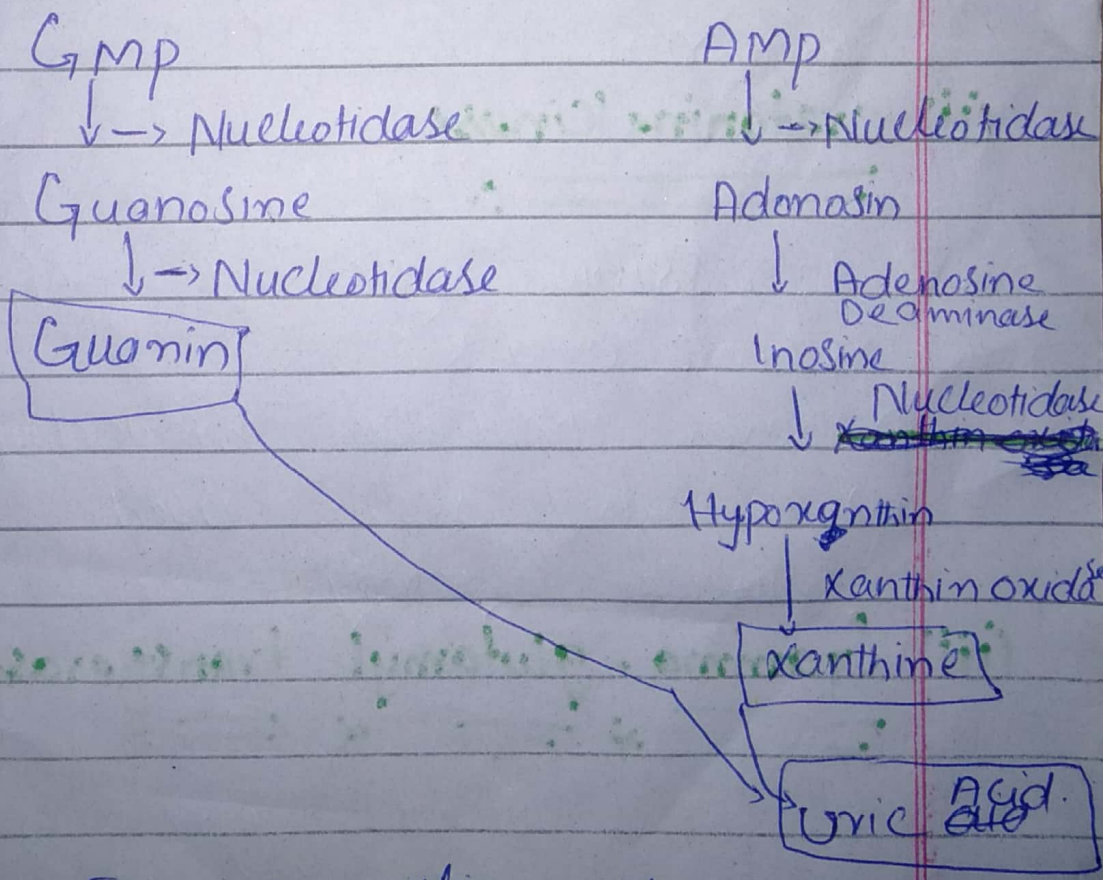
Depart = Radiology

(Q1) Uric Acid formation

:- Uric acid is a waste byproduct. It is formed when your body breaks down purines. which are found and Some food purines show up when cells die and get taken away.

Step Involve in uric acid formation

:-



In the formation of uric Acid the GMP is Change break down into Guanin and

AMP breales into Xanthine

~~Conformation~~

The uric acid is formed by Combination of Guanin and Xanthine.

Q2 Clinical Segnifitionca of

Alkaline phosphate

:- its is used to Show liver function.
Its indication of bone formation.

(ii) Cretanine Kinese

:- its use for

(i) to Show myocardial Infaction Such as heart attack

(ii) Sever Muscular break down

(iii) it is also used for muscular dystropy.

(iii) Gamma-glutamyl transferase

it is used for Liver function test.

Q3 How many protein Involve in ET·C and how do electron move In the in ET·C ?

Ans protein Involve in electran transport Chain In the form of Complexes. There are four Complexes

Complex I :- NADH dehydrogenase

Complex II :- Succinate dehydrogenase

Complex III :- Ubiquinine - cytochrom C reductase

Complex iv :- Cytochrom oxidase.

Electron moves in ETC

Complex I $\xrightarrow{\bar{e}}$ Coenzyme $\xrightarrow{\bar{e}}$ Complex iii

$NADH + H \quad NAD^+ \rightarrow$ Complex (ii) — succinate fumarate

Complex (ii) → Complex (iii) $\xrightarrow{e^-}$ cyte → Complex IV → Com 5

$ADP + pi$ $\quad$ ATP

P.T.O

In Complex I

NADH+H which is in ~~oxidized~~ reduced form ~~then~~ loss their electron & become oxidized, the loss electrons is accepted by ~~complex II~~ coenzyme Q which the convertion of Succinate to ~~Fumarate~~ Fumarate the loss electron is then accepted by Complex III then ~~cytochrome~~ Cytochrom C & then Complex IV, finally in Complex V the ADP, phosphate and the energy & electrons combined & formed ATP.

(Q4) Write down the four steps involved in beta oxidation.

Ans **Dehydrogenation:-**

:- In the first step acyle Co-A is ~~oxidated~~ oxidized by enzym acyl Co-A dehydrogenase. A double bond is formed between the second and Third Corbans (C_2 and C_3) of the acyle-Co-A : Chain entering the beta oxidation cycle The end product of this reaction is trans enoyle Co-A Trans delta enoyl CoA)

Hydration

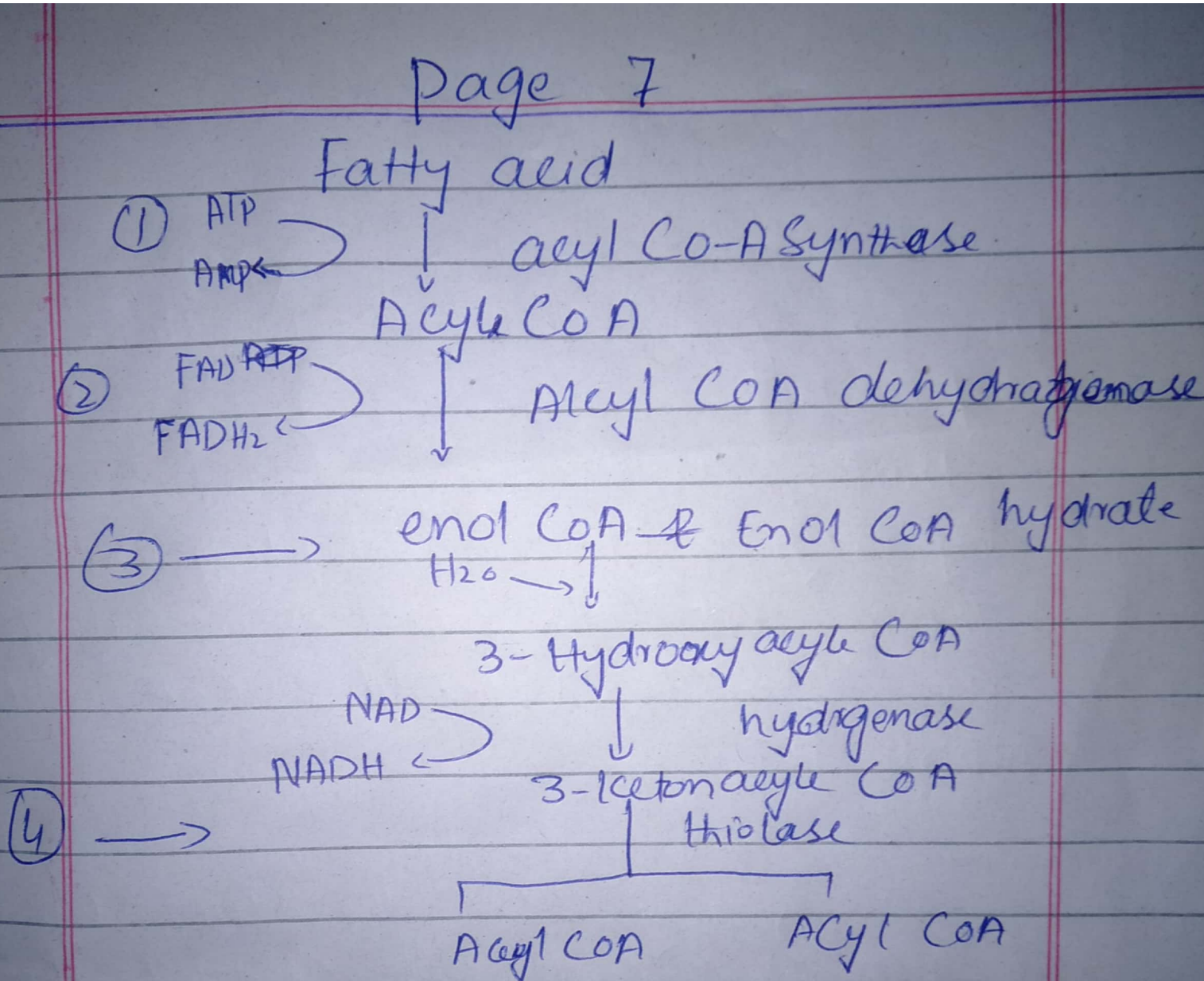
:- In The second step The double bond between C_2 and C_3 of trans Δ enoyl CoA is hydrated forming the end product L-B hydroxyl group (OH) in C_2 in plale the double bond The reaction is catalyzed by other enzyme.

(iii) oxydation :-

:- hydroxyle group in C_2 of L-B hydroxyle CoA by NAD^+ in a reaction that is catalyzed by 3 hydroxyl- CoA dehydrogenesis The end product ~~is catalyzed~~ are Beta ketoacyl CoA and NADH + H

(4) Thiolysis

:- finally in the 4th step B-ketocyle CoA is cleaved by thiol group (SH) of another The enzyme that cleved ~~by~~ take place b/w C_2 and C_3



Q5 How uric acid formation take Place.

ANS Uric acid formation:-

Uric acid is a waste product produce by metabolic waste product of purine Base that is GMP and AMP.

"Xanthine oxidase is the main enzyme" involved in the uric acid formation and then uric acid is excreted in urine.

"Excessive production of uric acid in some abnormal condition cause Gout disease and kidney stone.

Normal unit of Uric acid is : 2.4 – 6.0 mg/dl (Female)
3.4 – 7.0 mg/dl (Male)