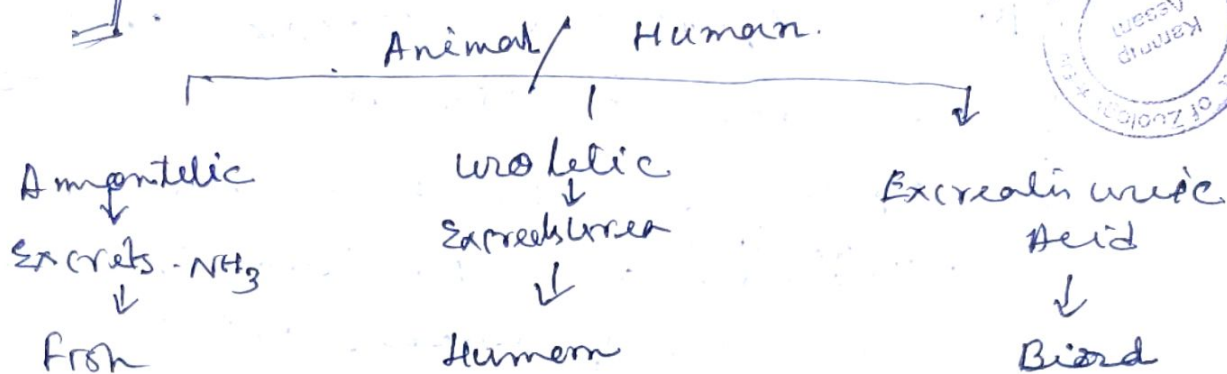
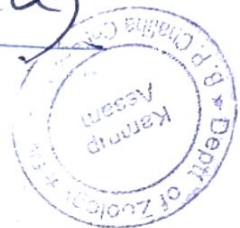


IV sem

## urea formation (urea cycle)



Ammonia  
Toxic  
Urea

→

Urea  
non toxic  
organic compound



End product of Protein metabolism

Introduction - Urea is synthesized in liver.

" Then transported to kidney.

⇒ It was discovered by Hans Krebs &

Kurt Hensel (1932) Hence it is

known as Krebs - Hensel cycle

Location → Liver → mitochondria & cytosol

⇒ Urea cycle is a five step process. Has

five enzymes. Two of them are

present in mitochondria.

Steps :- ① Synthesis of carbamoyl phosphate

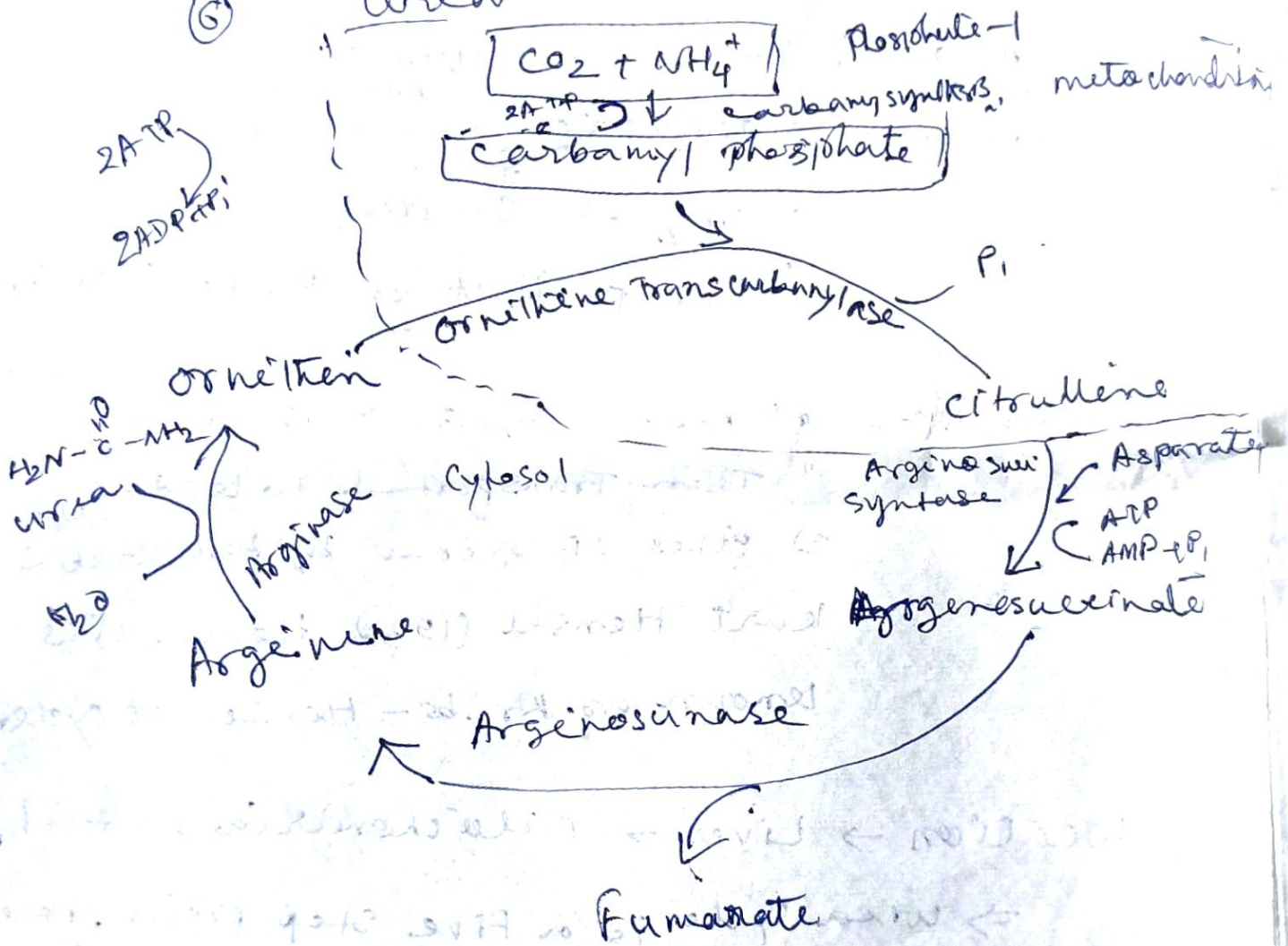
② Formation of Citrulline

③ Synthesis of Argininosuccinate

④ ~~Cleavage of~~ Argininosuccinate (Arginine)

⑤ Formation of urea or ornithin

⑥ Urea



Two enzyme mitochondria

Carbamyl phosphate ornithine → arginine  
or x ornithine carbamyl phosphate synthase 1  
β<sub>2</sub>γ<sub>2</sub> - citrulline → arginine

III Arginine