DT AND RAD

BIOCHEMISTRY

ASSIGNMENT FOR VIVA

**(STEPS INVOLVED IN URIC ACID FORMATION )**

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**Question no 1…**

Steps involved in uric acid formation?

**. Step No 1.**

.**formation of carbomoyl phosphate.**

. Carbonyl phosphate synthase one of mitochondria catalyses the condensation of NH4 ions with Co 2 to form carbomoyl phosphate.

This step consumes two ATP and it is irreversible.

It accept amino acid group from glutamine and does not required N acetyl glutamate for its activity.

**Step no 2.**

The seconds step reaction is also mitochondrial.

Citruline is synthesised from carbomoyl phosphate and ornithine by ornithine transcarbamoylase.

**Step no 3.**

Citruline condenses with aspartate to form argino succinate by the enzymes

Arginosuccinate synthetase.

Second amino group of urea is incorporated.

It requires ATP to AMP and PPi.

**Step no 4.**

The enzymes Arginosuccinate or Arginosuccinate to arginine and fumarate.

**Step no 5.**

Arginase is the 5 and final enzymes that cleaves and ornithine.

Arginase is activated by Co 2 + and mn+.

Arginine synthesis can occur to varying degrees in many tissues but only liver can ultimately produce urea.