Amjad khan ID:16796

DT 2nd semester B section.

(BIOCHEMISTRY)

ASSIGNMENT FOR VIVA

(STEPS INVOLVED IN URIC ACID FORMATION )

Ans: Ans:Introduction: The formation of uric acid is through the enzyme xanthine oxidase, which oxidizes oxypurines. Normally a small amount of uric acid is present in the body, but when there is an excess amount in the blood, called hyperuricemia, this can lead to gout and formation of kidney stones.

Steps: In addition to problems with uric acid excretion due to kidney dysfunction, hyperuricemia can also result from the increased generation of uric acid. Diets heavy in purine or fructose, or exposure to lead can also contribute to high uric acid levels.

2. 5′-Nucleotidase

Enzyme 5′-Nucleotidase hydrolyzes nucleotide monophosphates or deoxynucleotide monophosphates to nucleotides and deoxynucleotides more inorganic phosphate. This enzyme, together with nucleotide kinase, regulates the pool of the nucleotides in cells.

3. Adenosine deaminase

Adenosine deaminase (ADA) is an important enzyme in the purine metabolism that catalyzes the deamination of both adenosine and 2′-deoxyadenosine to inosine and 2′-deoxyinosine, respectively, and ammonia.

4. Xanthine oxidase

The physiological role of xanthine oxidoreductase enzyme (XOR) is to catalyze the terminal two reactions of purine catabolism in human.

5. Conclusion5) How uric acid formation takes place in body?

**Thank you!**