

DT AND RAD

BIOCHEMISTRY

ASSIGNMENT FOR VIVA

(STEPS INVOLVED IN URIC ACID FORMATION)

Name= Muhammad younas

Roll NO= 16290

Answer :

URIC ACID

an almost insoluble compound which is a breakdown product of nitrogenous metabolism. It is the main excretory product in birds, reptiles, and insects

Uric acid is a waste byproduct. It's formed when your body breaks down purines, which are found in some foods. Purines show up when cells die and get taken apart. Most of the uric acid leaves your body when you pee, and some when you poop. If you have high levels of uric acid, it can be a sign of disease such as gout.

EXPLANATION

Uric acid production and metabolism are complex processes involving various factors that regulate production as well as renal and gut excretion of these compounds. Uric acid is the end product of an exogenous pool of purine and endogenous purine metabolism.

The exogenous pool varies significantly with diet and animal protein contributes significantly to this purine pool. The exogenous production of uric acid is mainly from liver, intestine and other tissues like muscles, kidney and the vascular endothelium.

Step involved in Uric Acid formation:

Adenosin Mono-phosphate

AMP

Nucleotidase

Adenosine

Adenosine deaminase

Inosine

Nucleosidase

Hypoxanthine

Xanthine oxidase

Xanthine

Xanthine oxidase

Uric Acid

Guanine Mono-phosphate

GMP

Nucleotidase

Guanosine

Nucleosidase

Guanine

Guanine deaminase

(1) AMP and GMP are
purine.

(2) AMP are change
into Adenosine by
the action of
enzyme in the liver.

(3) Then Adenosine are
converted into inosine
and these inosine are
converted into ipoxantine.
ipoxantine are converted
into Xantine and
Finally these Xantine
is change into
uric Acid by the
action of enzyme.

(4) GMP are change into
guanosine. these change
into guanine
and these guanine
change into xanthine and
Finally into uric
Acid.

→ uric Acid is more