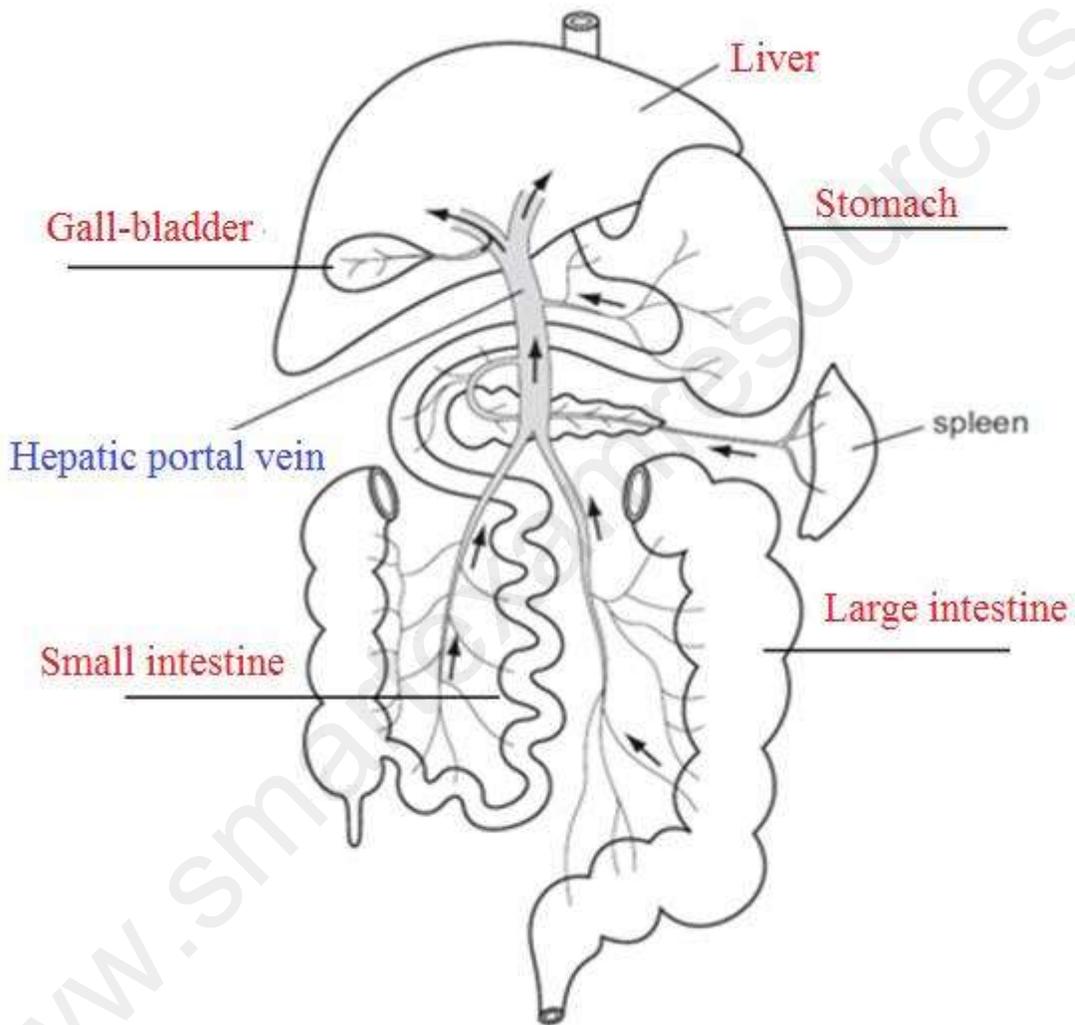


EXCRETION

Assimilation and Deamination

Liver and associated organs:



ASSIMILATION:

Assimilation It is the movement of digested food molecules into the cells of the body where they are used, becoming a part of the cells.

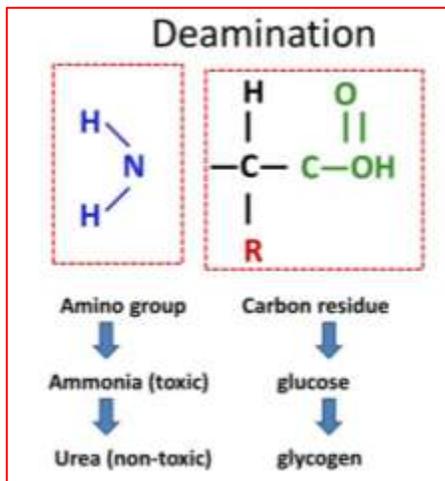
In assimilation, the absorbed food is chemically altered by the liver or by other chemical substances before being utilised by the cells of the body.

Liver assimilates amino acids by converting them in proteins including plasma proteins like fibrinogen.

DEAMINATION:

Definition: Deamination is the removal of amine group from a molecule. **OR**

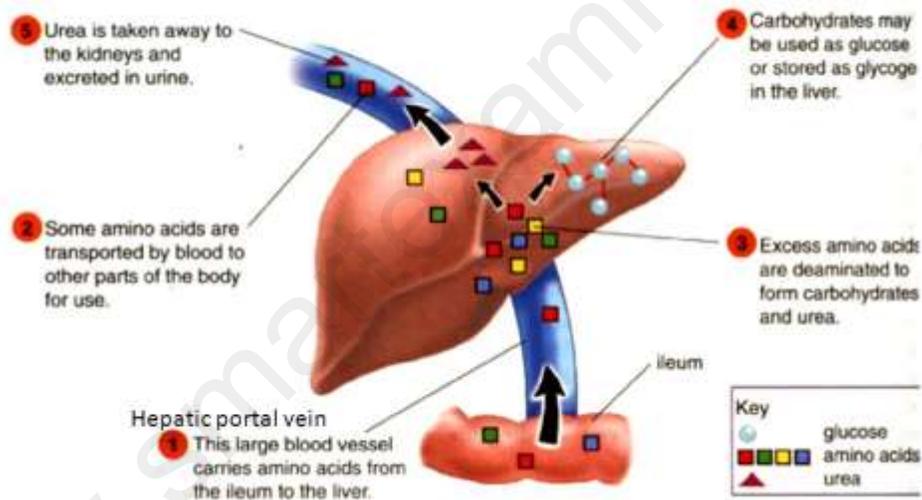
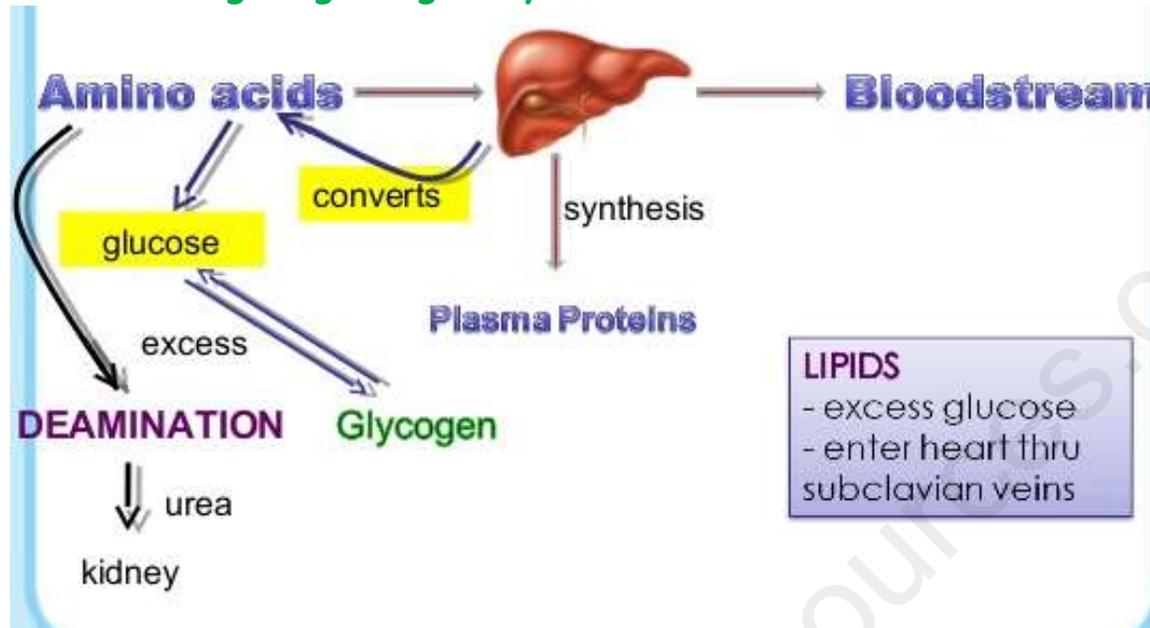
Deamination is the removing of nitrogen-containing part of amino acids to form urea and using of the remainder of amino acid to provide energy to the liver cells.



So in the deamination of amino acids, the amine group is removed from amino acids and changed into carbohydrates and ammonia

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- The proteins brought to the alimentary canal are changed into amino acids .
 - These amino acids then get absorbed into the blood and pass into the liver via the hepatic portal vein.
 - **The liver then carries out its functions in the following ways:**
 - ✓ The amino acids required by the body are sent into the circulation.
 - ✓ The excess amino acids are deaminated into carbohydrates and ammonia.
 - ✓ The carbohydrates are either used or changed to glycogen for later use.
 - ✓ The ammonia is changed into urea and then sent into circulation to the kidneys for its removal.
-

The following diagram gives you different functions of the liver.



Application based questions:

MCQ:

24 Which organ produces urea?

- A bladder
- B kidney
- C liver
- D pancreas

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Theory:

M/J/2009-P32-Q2

(d) Describe what happens to amino acids inside liver cells.

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