PROTEIN METABOLISM

PROTEIN CATABOLISM – hydrolysis breaks peptide bonds yielding amino acids

AMINO ACID CATABOLISM - (requires B6)
A. Transamination – attaches an amino group of an amino acid to a keto acid converting a keto acid into an amino acid. The original amino acid becomes a keto acid.
   1. New amino acid can be used for synthesis
   2. Keto acid can be broken down in the TCA cycle
B. Deamination – uses deaminase, water & NAD
   1. breaks down an amino acid into a keto acid and an ammonia.
   2. liver cells convert ammonia to urea via the UREA CYCLE

PROTEIN ANABOLISM – dehydration synthesis
A. Amination – attaches amino group to a keto acid
B. Ten essential amino acids
C. Deficiency diseases
   1. marasmus
   2. kwashiorkor
D. Genetic metabolic disorder - PKU