

## NCERT Problems

Question 14.13 What are the common types of secondary structure of proteins?

Answer : Secondary structures of proteins are found to exist in two types of structure:- (i)  $\alpha$ - Helix structure:-  $\alpha$ -Helix is a way in which a polypeptide chain forms all possible hydrogen bonds by twisting into a right-handed screw or helix with the  $-NH$  group of each amino acid and residue hydrogen bonded to the of an adjacent turn of the helix

(ii)  $\beta$  pleated sheet:- In this structure, all peptide chains are stretched out to maximum extension and then laid side by side which is held together by strong intermolecular hydrogen bonds.

Question 14.14 What type of bonding helps in stabilising the  $\alpha$ -helix structure of proteins?

Answer : Hydrogen bonding is the intermolecular bonding which helps in stabilising the  $\alpha$ -helix structure of proteins. Hydrogen bonds are formed between  $-NH-$  of amino acid and  $C=O$  of the adjacent turn of helix

18 What is the effect of denaturation on the structure of proteins?

Answer: In denaturation of protein, globules get unfolded and helix gets uncoiled and also globular protein converts into fibrous protein. The primary structure remains the same but secondary and tertiary structure of the protein are destroyed so its biological activity changes