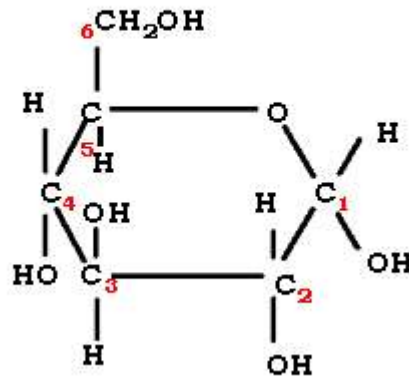


F. Categories of Macromolecules.

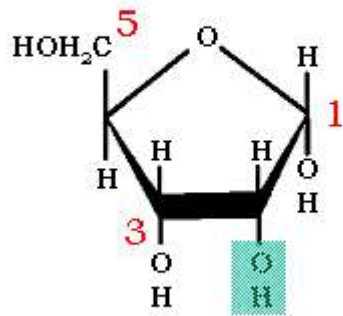
1. Carbohydrates (CHO)

(i) Monosaccharide (=simple sugars) Properties

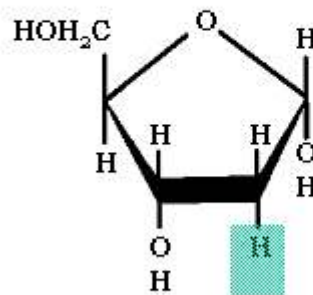
- Glucose ($C_6H_{12}O_6$) is a hexose



- Important Pentoses



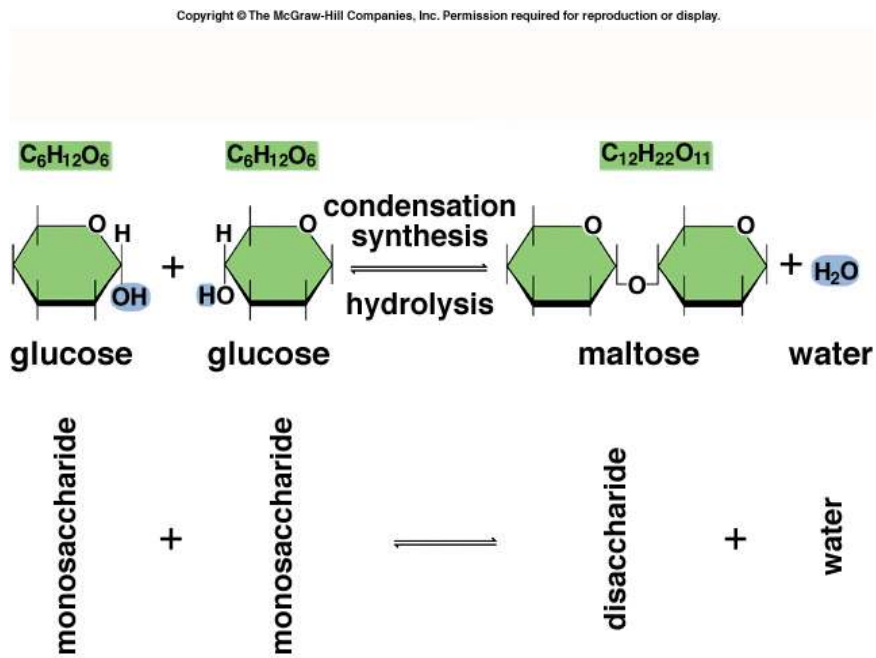
Ribose



Deoxyribose

(ii) Disaccharide Properties

How are two monosaccharides joined together?



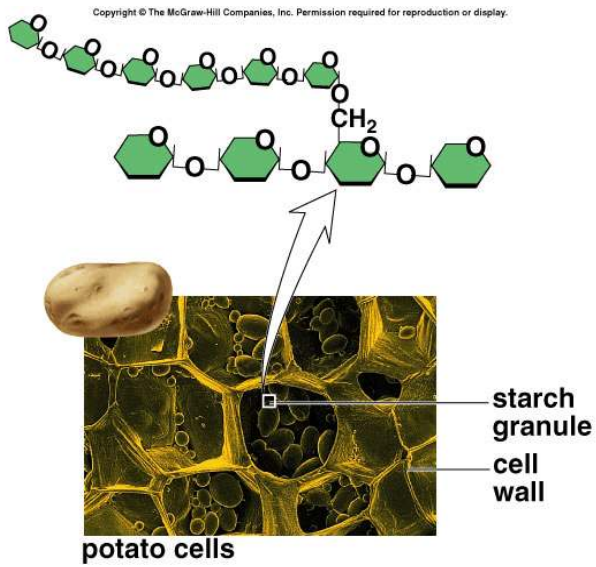
Condensation (dehydration) synthesis -

Hydrolysis -

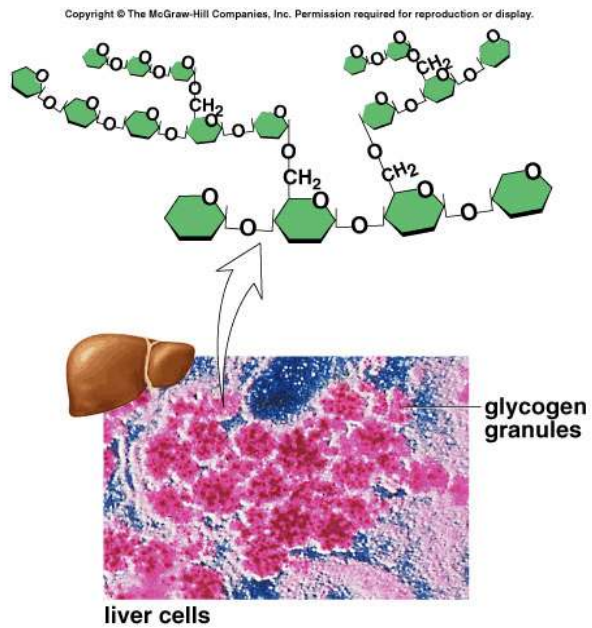
Other disaccharides that you know:

(iii) Polysaccharide Properties

Starch



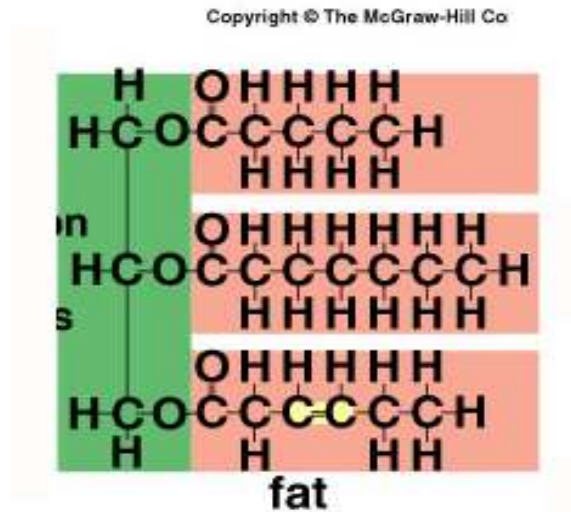
Glycogen



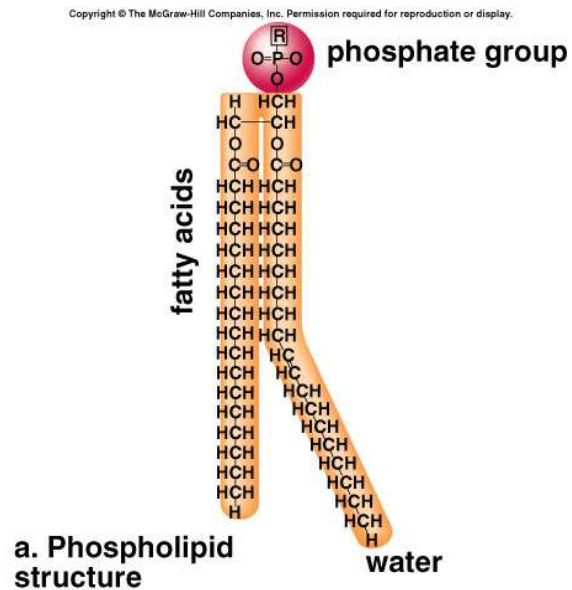
2. Lipids

General Properties -

(i) Triglycerides

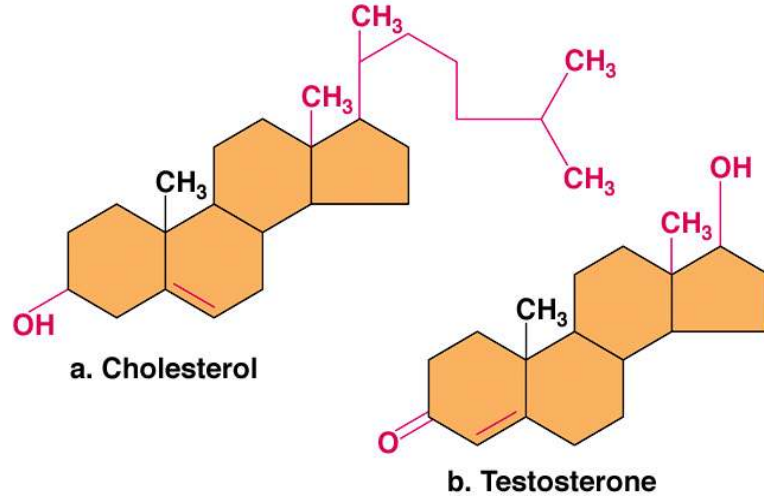


ii) Phospholipids



(iii) Steroids

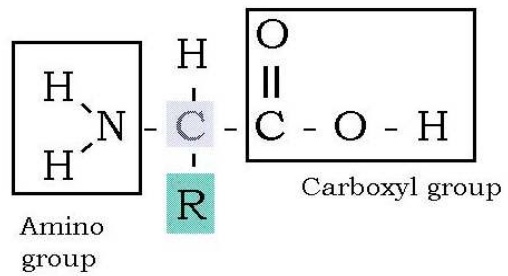
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3. Proteins

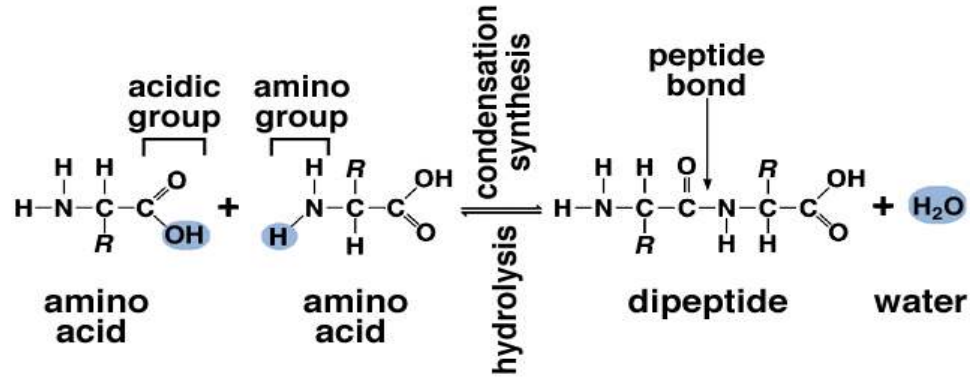
(i) General Properties

(ii) Amino Acid Structure



Peptide Bond Formation

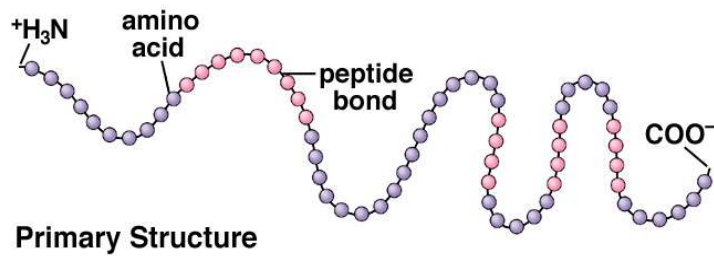
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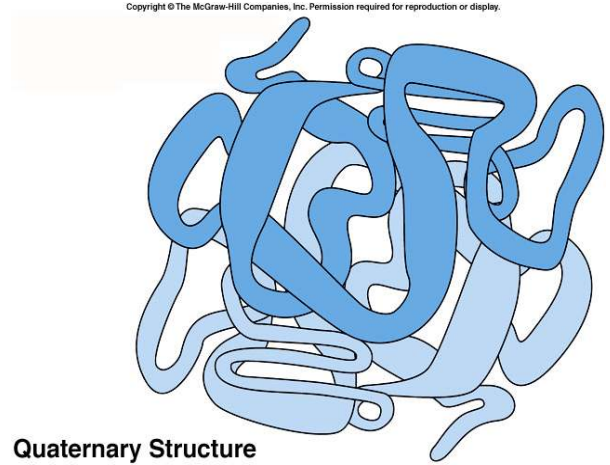
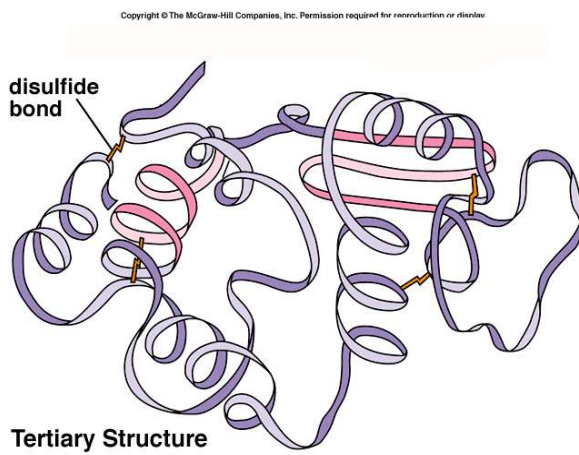
(iii) Levels of Protein Organization (Structure)

❖ Amino acid sequence (primary structure) -

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❖ Protein shape (secondary, tertiary, & quaternary structure) -



Why are Proteins So Important?

How many proteins of 150 amino acids are possible?

Denaturation -

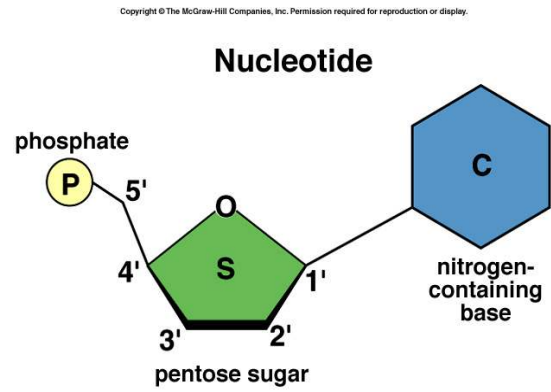
Temperature -

pH -

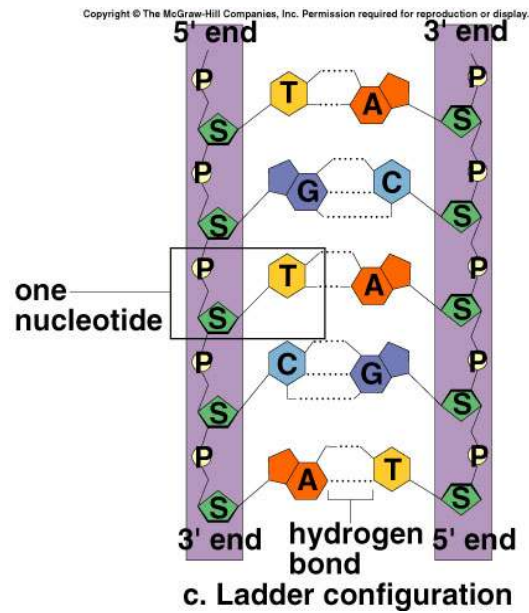
4. Nuclei Acids

(i) General Properties

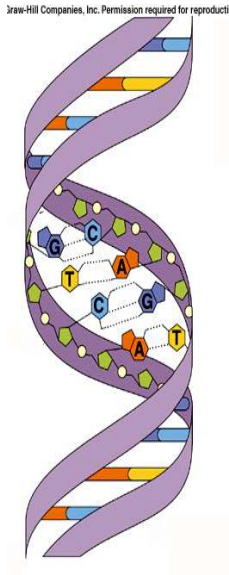
(ii) Nucleotide Structure



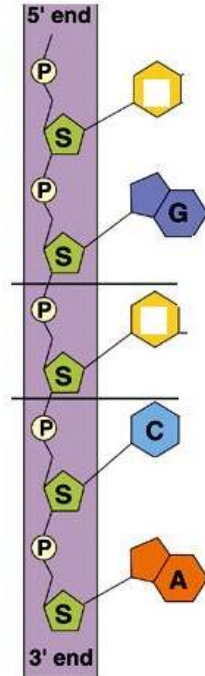
Polymerization of nucleic acids



Comparison of DNA and RNA



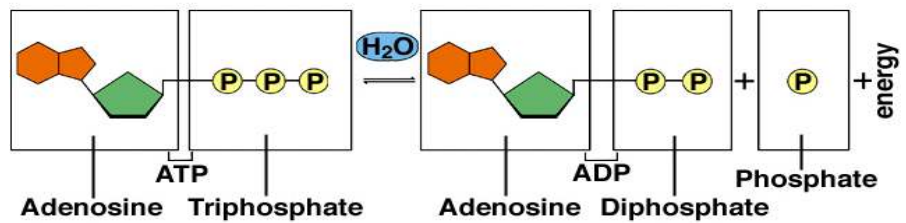
DNA	Characteristic	RNA
	Sugar	
	Nitrogenous Bases	
	Number of strands	
	Function	
	Location in cell	
	Forms double helix	



Adenosine Triphosphate (ATP) is an _____.

Where is the energy STORED in ATP?

ATP hydrolysis -



What is the energy from ATP used for?