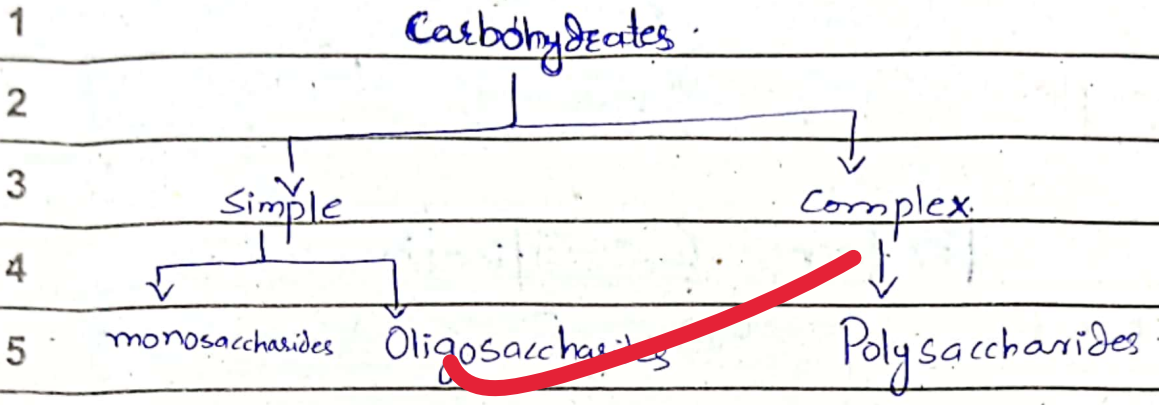


Attempt and upload proper questions for evaluation: not notes

صرف آپ کے سوال کے جوابات کے لیے (For Use of Objective Questions Only)

Code \_\_\_\_\_

Q: No. Answer Classification of Carbohydrates



① Monosaccharides: → Greek word, mono = One and Sakron = Sugar.  
→ They are the simplest sugars and can't be hydrolyzed.  
→ The general formula is  $C_n(H_2O)_n$ .  
Examples: Glucose, Fructose, Galactose - **Sources?**

② Oligosaccharides: - Greek word Oligo = few and Sakron = Sugar.  
→ Oligosaccharides are compound sugars that yield 2 to 10 molecules of same or different monosaccharides on hydrolysis.

**Structure?**

→ The general formula is  $C_n(H_2O)_{n-1}$  for disaccharides and  $C_n(H_2O)_{n-2}$  for tetrasaccharides.  
→ Oligosaccharide yielding 2 molecules of monosaccharide on hydrolysis is called disaccharide.  
→ Oligosaccharide yielding 3 or 4 monosaccharides are called trisaccharides or tetrasaccharides respectively.  
Example: Sucrose, Lactose, Maltose.

### ③ Polysaccharides: Greek word :-

Poly = many , Sakron = sugar

→ These are complex sugars and yield more than 10 molecules of monosaccharides on hydrolysis.

→ The general formula is  $(C_6H_{10}O_5)_n$ .

Example:- starch , glycogen.

### Proteins: Classification

→ On the basis of structure proteins are classified

as:-

① Primary structure protein:- Long chain of amino-acids arranged in a particular sequence.

② Secondary structure proteins:- Polypeptide chain coiled into spiral or helix to have three-dimensional structure. Examples:- Keratin , silk fibres etc.

③ Tertiary structure protein:- long polypeptide chain become more stabilized by folding and coiling by forming ionic or disulphide bridges.

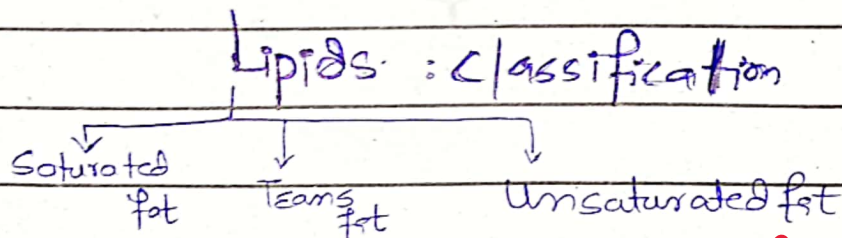
Examples:- Globulins of blood.

④ Quaternary structure protein:- When a protein is an assembly of more than one polypeptide or subunits. Examples:- Hemoglobin & Insulin.

## On the basis of biological function Proteins 5

are classified as:-

- ① Enzymatic Proteins:- They are specialized proteins with catalytic activity. Examples: Urease, catalase, cytochrome C etc.
- ② Structural Protein:- These proteins aid in strengthening or protecting biological structures. Examples:- Collagen, elastin, keratin etc.
- ③ Transport or carrier proteins:- These help in transport of ions or molecules in the body. Examples:- Myoglobin, hemoglobin.
- ④ Nutrient and storage proteins:- These provide nutrition to growing embryos and store ions. Example:- AFP.



- ① Saturated fat: it is called solid fat because it is solid at room temperature. It is mostly in animal food such as milk, cheese and meat.
- ② Trans fat:- This is a fat that has been changed by a process of hydrogenation. The sources are:- Cookies, Crackers, chips.
- ③ Unsaturated fat:- it is liquid at room temp:- It is mostly in oils from plants.