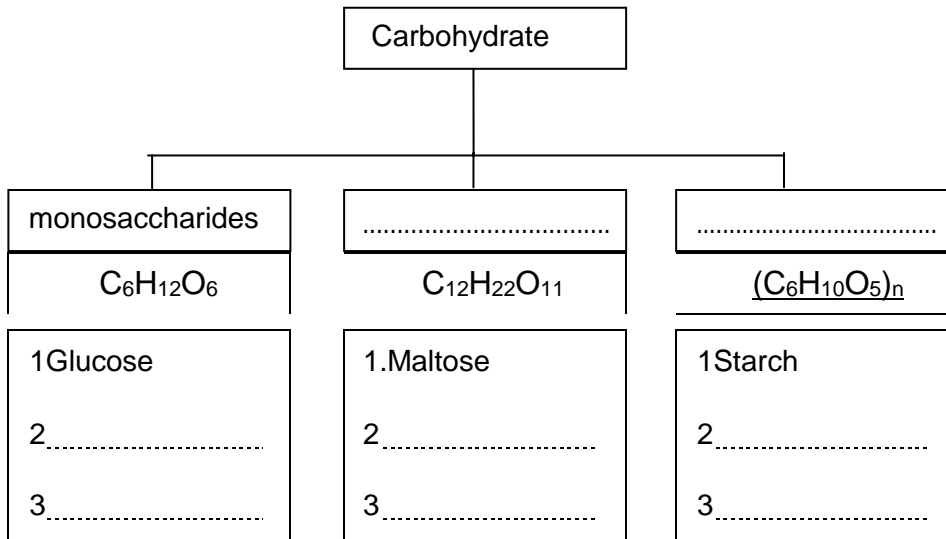




## The chemical basis of life

01. What is the number of elements present in living organisms?
02. Name the **four** most abundant elements in living matter.
03. Compounds containing the element carbon are organic compounds  
Name two compounds that are not considered as organic compounds even though they contain carbon.
04. Name 04 basic organic compounds contained in living matter.
05. Name two inorganic compounds commonly found in living matter.
06. Write the general molecular formula of carbohydrates.
07. Fill in the blanks below for the Carbohydrate Classification.



08. Write two properties of monosaccharides.

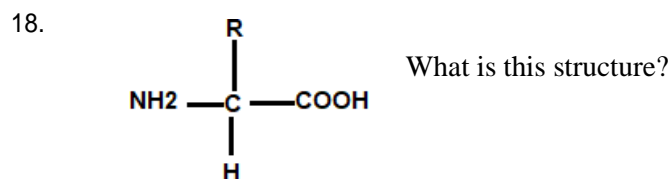
09. Write down the sweetest and least sweet monosaccharides, respectively.
10. Complete the following note regarding the production of disaccharides.

monosaccharides, + .....  $\longrightarrow$  Disaccharides+ .....

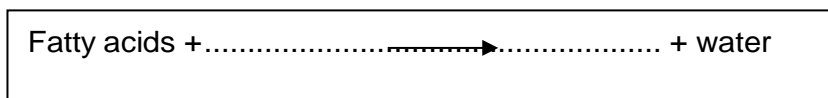
11. Write down the foods that contain maltose and sucrose each.
12. Write two special properties of polysaccharides.
13. Name the carbohydrates that are stored in the body of animals.
14. Write down the 04 important facts of carbohydrates.
15. Complete the table that includes the following activities.

Activity	Observation
1. Starch test  Add a little water to the rice and crush together Then add them into a test tube. And put few drops of iodine solution.	..... ..... ..... .....
2. Glucose detection  ..... ..... .....	Blue--- Green----Yellow-----Orange ---- Brick red receiving precipitation.
3. Sugar solution Add a few drops and heat Add Benedict solution	..... ..... .....

16. In addition to carbohydrates and lipids, name two elements present in proteins.
17. Name two plant foods that contain protein.



19. Write the name of the protein detection test and describe the test.
20. What are enzymes?
21. When little iodine was added twenty minutes after adding the amylase enzyme to an aqueous bread flour solution, it did not turn blue. What is the reason for it?
22. Fill in the blanks below.



23. Describe how lipids maintain water conservation and body temperature.
24. What are the elements contained in nucleic acids?
25. Draw a structure of a nucleotide and name the parts of it.
26. Write the five important facts of nucleic acids.
27. Fill in the blanks in the table below.

Nucleic acid	structural unit	function
DNA		
RNA		

28. Describe a test to show that water contains in food.
29. Write down four unique properties of water.
30. Describes how the asymmetric expansion of water is important to living organisms.
31. Describe how the solvent property of water is important for the living organisms.