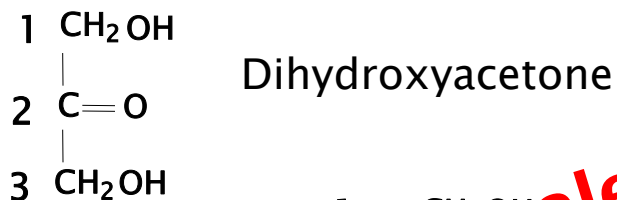


Functions

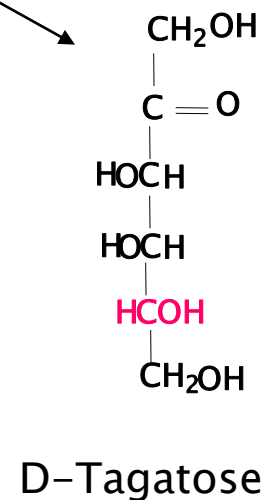
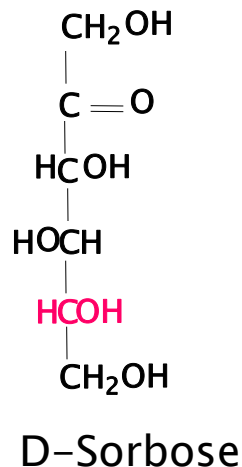
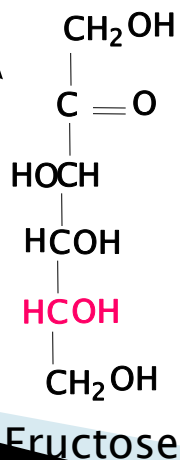
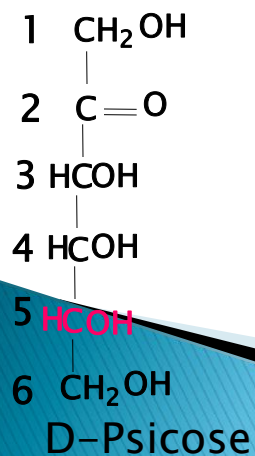
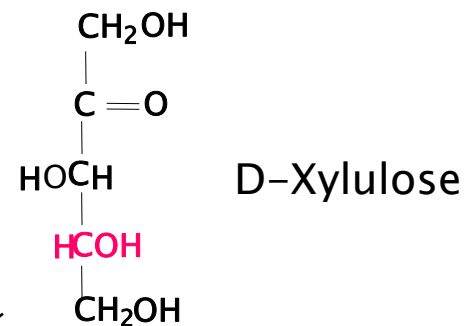
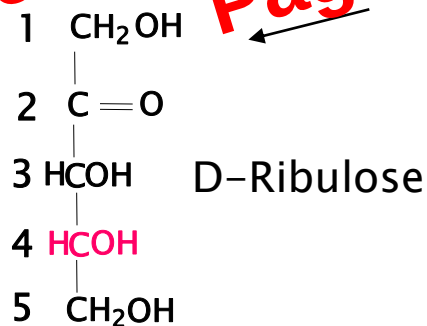
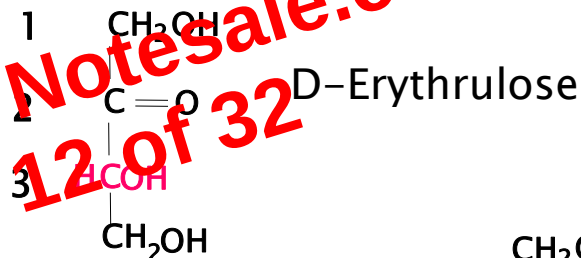
- ▶ Have multiple roles in all forms of life
 - Energy stores, fuels, and metabolic intermediates
 - Spare proteins
 - Used in fat oxidation (OAA)
 - Form part of the structural network of RNA and DNA
 - Help GI function in the body
 - Structural elements in the cell walls of bacteria and plants
 - Recent evidence suggests that carbohydrates units on the cell surface play key roles in the cell-cell recognition

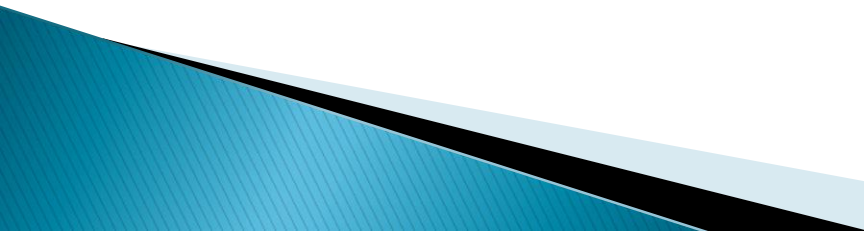
- Preview from Notesale.co.uk
Page 10 of 32
- ▶ The 5 carbon aldoses have three asymmetric centers with 8 (2^3) stereoisomers
 - ▶ The 6 carbon aldoses have 4 asymmetric centers with 16 (2^4) stereoisomers
 - ▶ Sugars differing in configuration at one asymmetrical center are epimers
 - D-glucose and D-mannose are epimers at C-2
 - D-glucose and D-galactose are epimers at C-4
 - ▶ Most of the monosaccharides occurring in mammalian metabolism are of the D-configuration

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Page 12 of 32



- preview from Notesale.co.uk
page 13 of 32
- ▶ Most of the monosaccharides occurring in mammalian metabolism are of the D-configuration
 - ▶ D- Fructose is the most abundant ketose
 - ▶ Pentoses and hexoses cyclize to form furanose (5-membered)and pyranose (6-membered) rings
 - ▶ D-Glucose is the most common aldose
- 

Pentoses and hexoses cyclize to form furanose and pyranose rings

- ▶ The predominant forms of glucose and fructose in solution are not open chains – the open chain forms cyclize to form rings
- ▶ In general an aldehyde can react with an alcohol to form a hemiacetal

