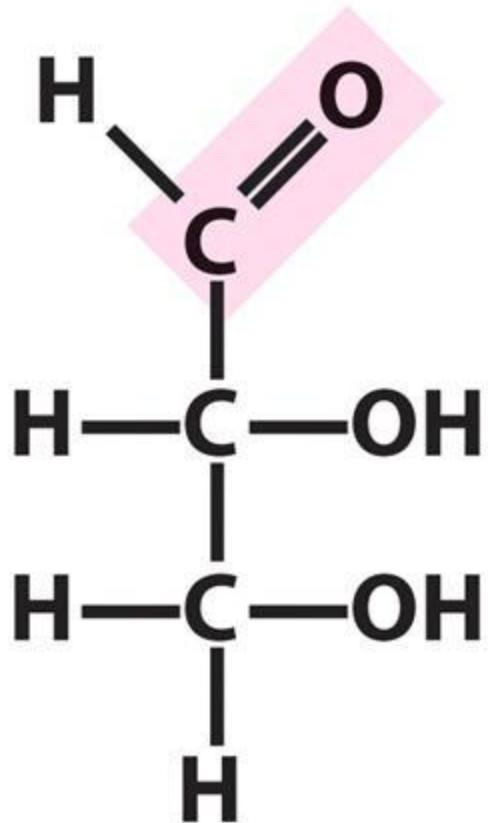


# ОБЩАЯ ФОРМУЛА УГЛЕВОДОВ

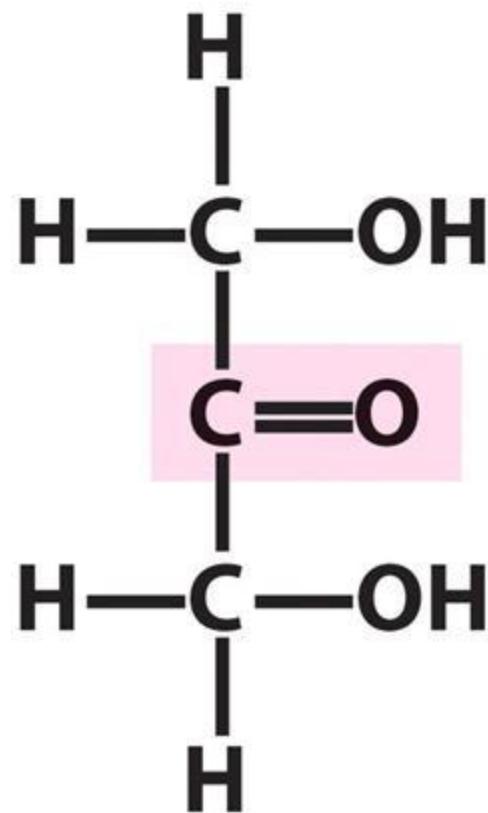


где  $n=m$  – простые сахара, или моносахариды,

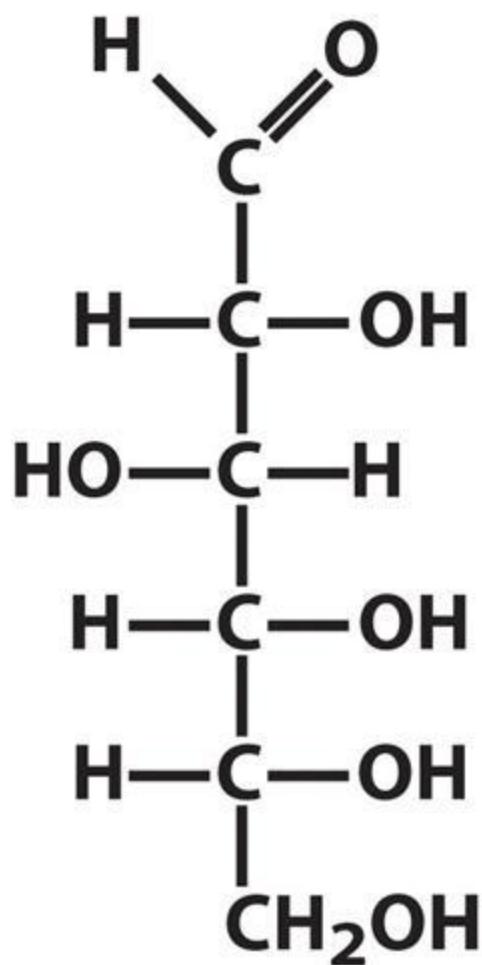
$n>m$  – сложные сахара, олиго- и полисахариды



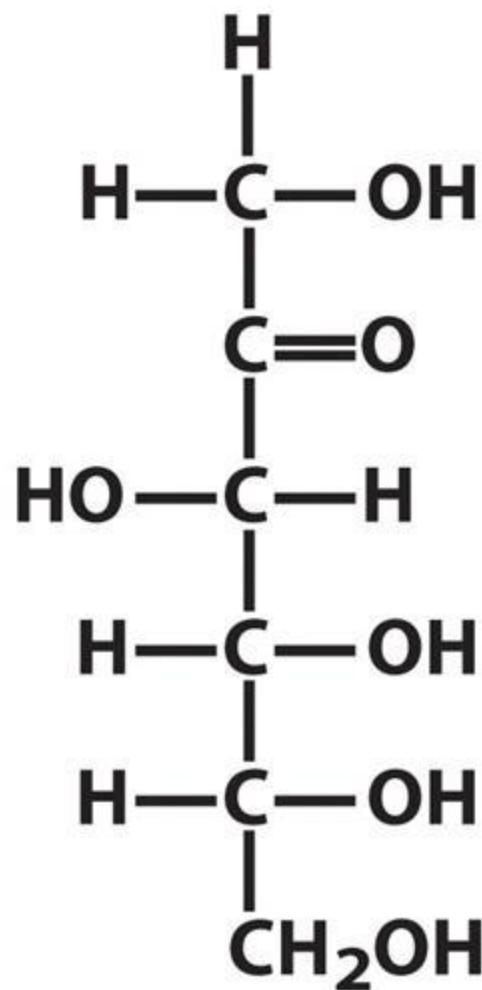
глицеральдегид



диоксиацетон

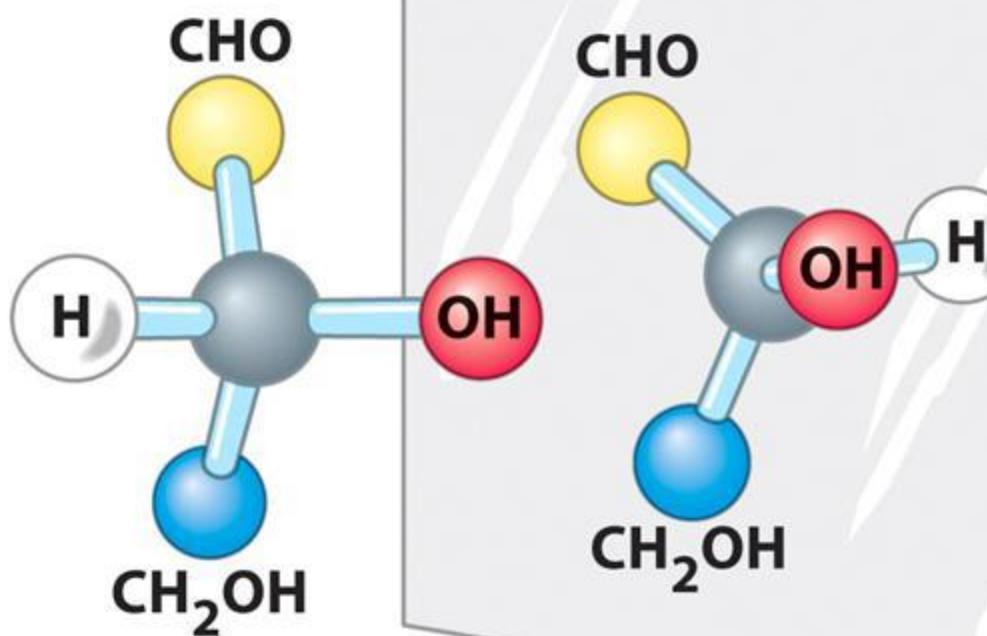


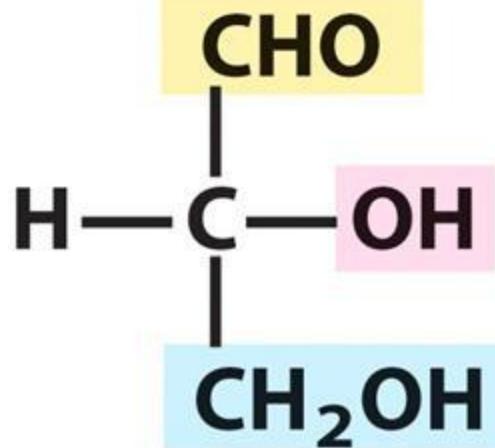
D-глюкоза  
альдогексоза



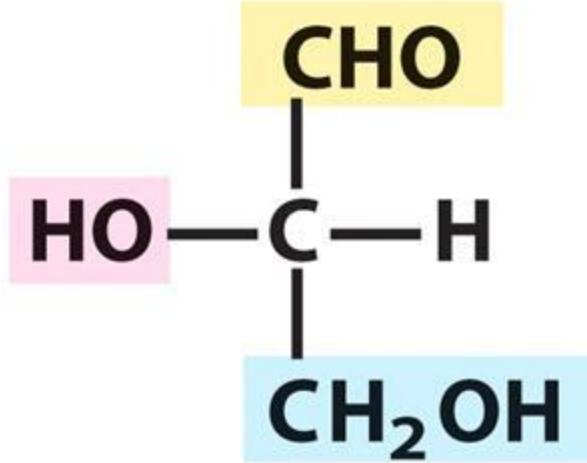
D-фруктоза  
кетогексоза

**зеркало**



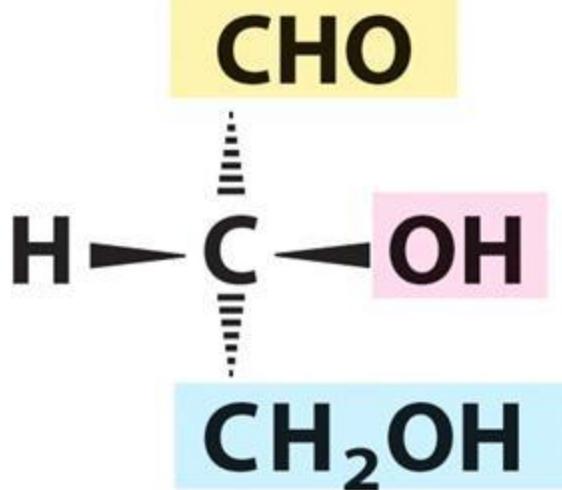


D-глицеральдегид

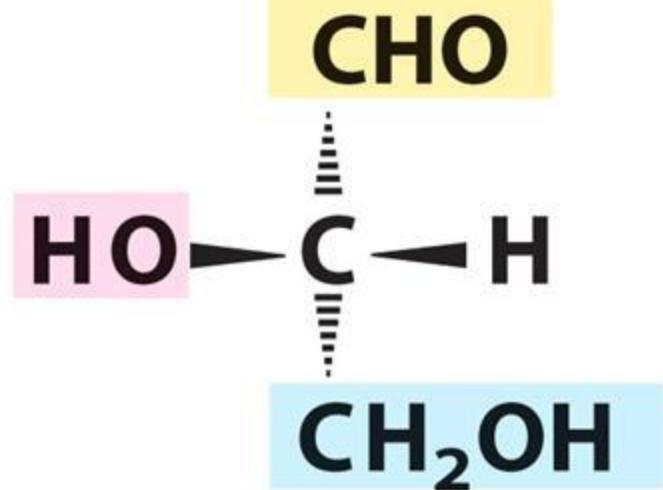


L-глицеральдегид

проекционные формулы Фишера

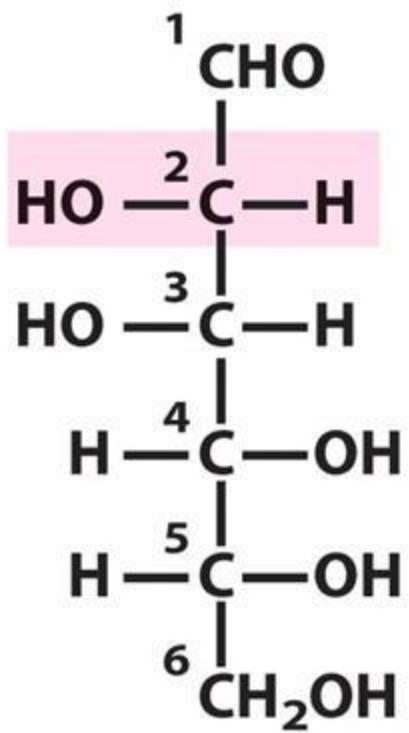


D-глицеральдегид

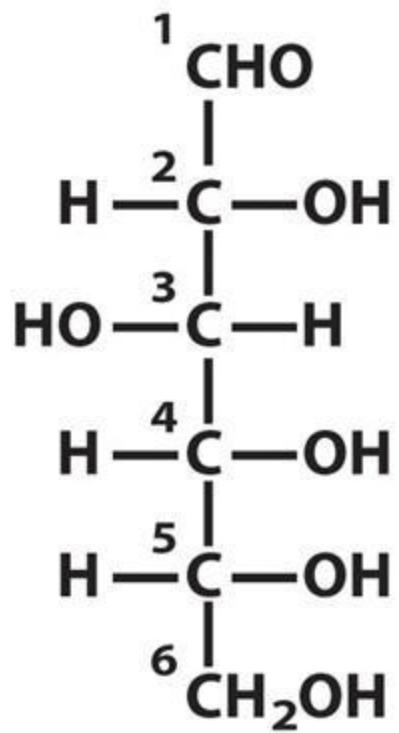


L-глицеральдегид

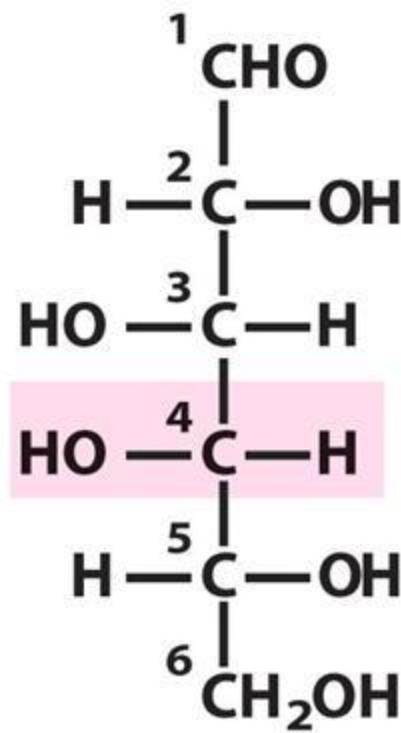
перспективные формулы



**D-манноза**  
эпимер по С-2



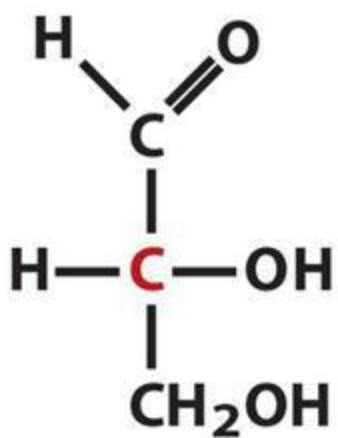
**D-глюкоза**



**D-галактоза**  
эпимер по С-4

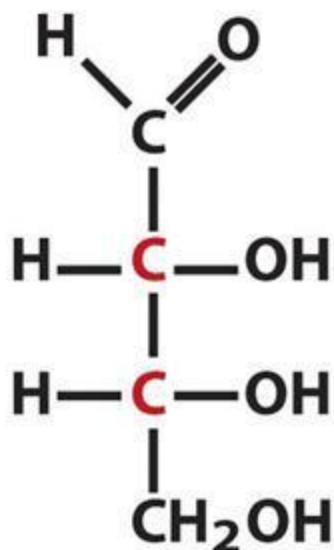
# D-альдозы

трёхуглеродная  
(триоза)

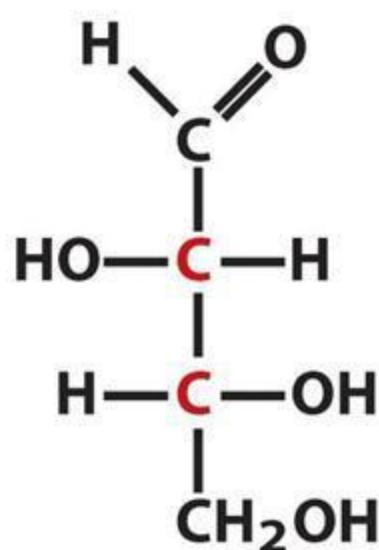


D-глициральдегид

четырёхуглеродные  
(тетрозы)



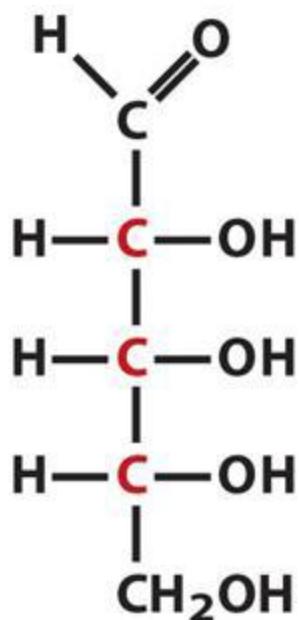
D-эритроза



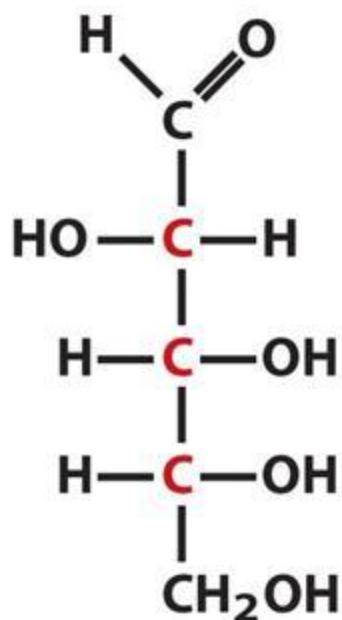
D-треоза

# D-альдозы

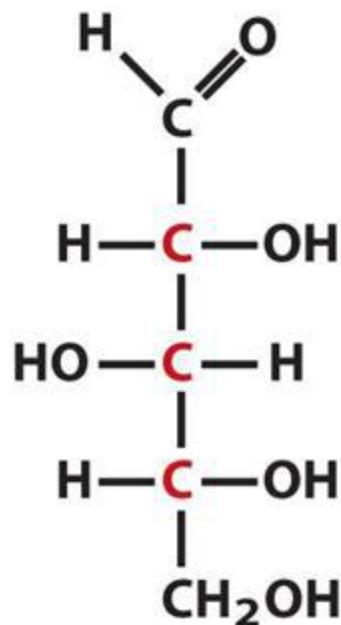
пятиуглеродные (пентозы)



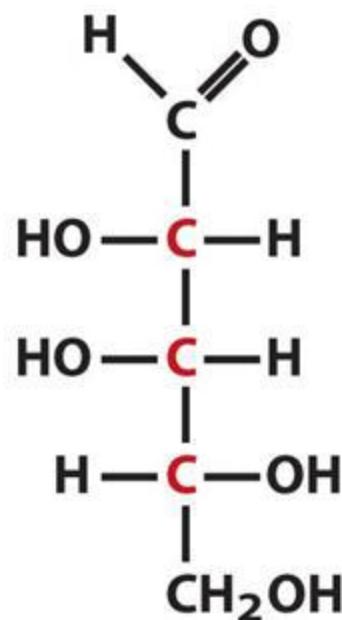
D-рибоза



D-арabinоза



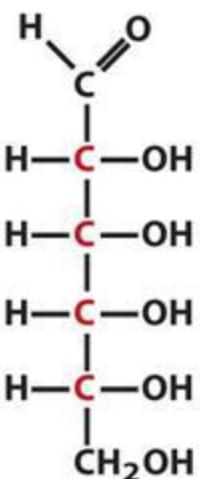
D-ксилоза



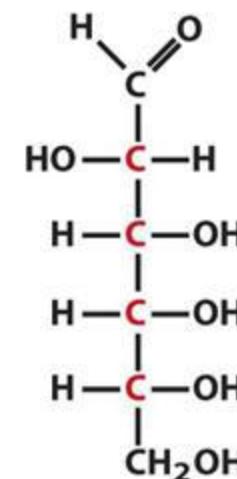
D-ликсоза

# D-альдозы

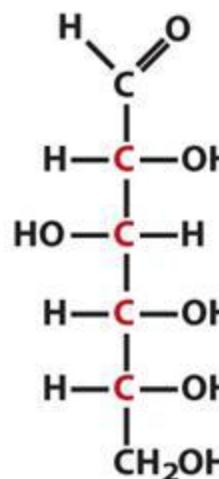
## шестиуглеродные (гексозы)



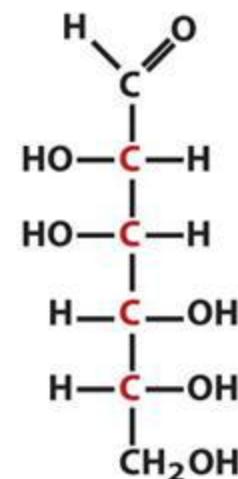
D-аллоза



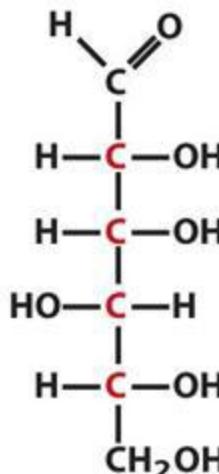
D-альтроза



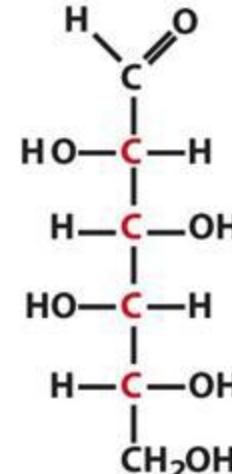
D-глюкоза



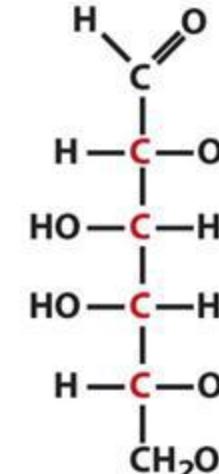
D-манноза



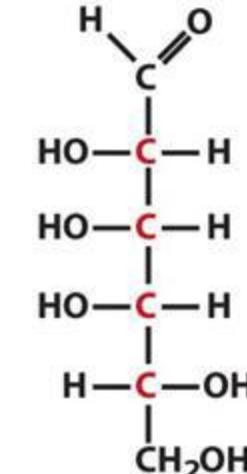
D-идоза



D-гулоза



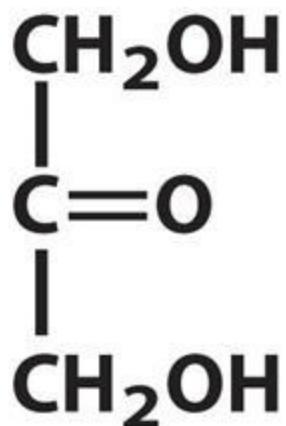
D-галактоза



D-талоза

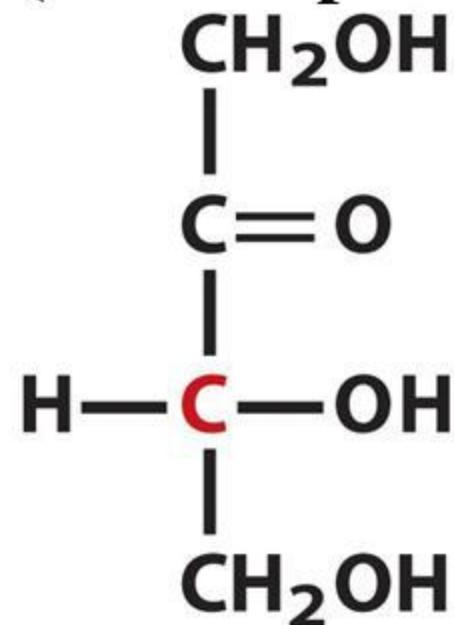
# D-кетозы

трёхуглеродная  
(кетотриоза)



диоксиацетон

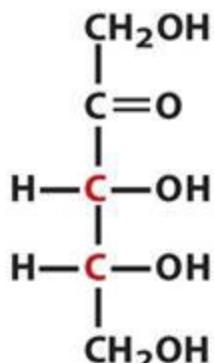
четырёхуглеродная  
(кетотетроза)



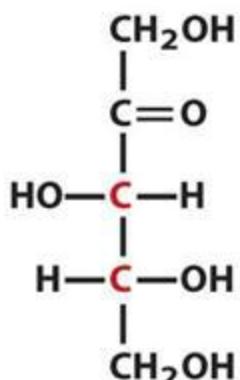
D-эритрулоза

# D-кетозы

## кетопентозы

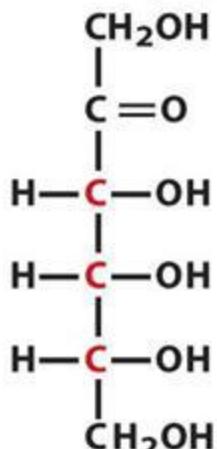


D-рибулоза

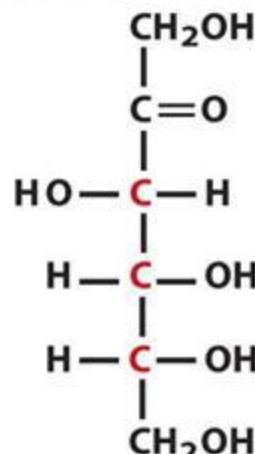


D-килулоза

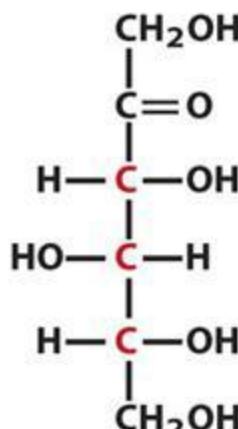
## кетогексозы



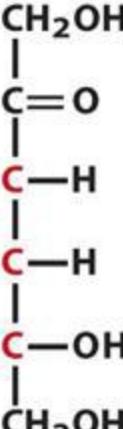
D-псикоза



D-фруктоза

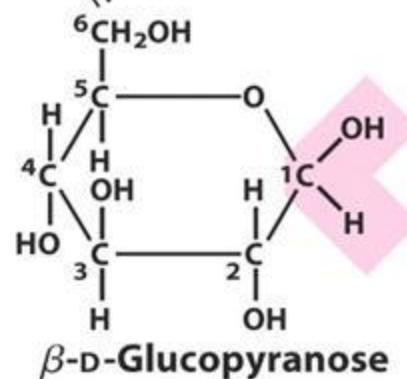
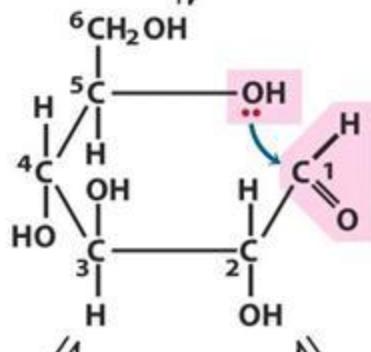
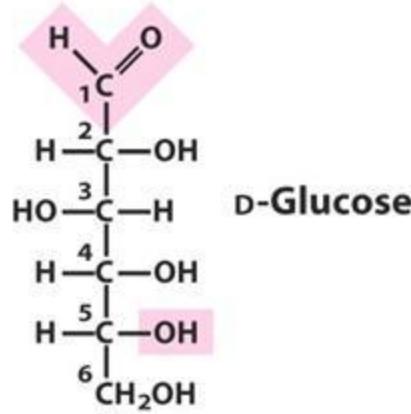


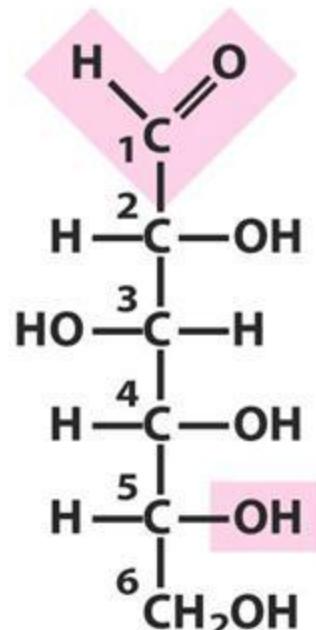
D-сорбоза



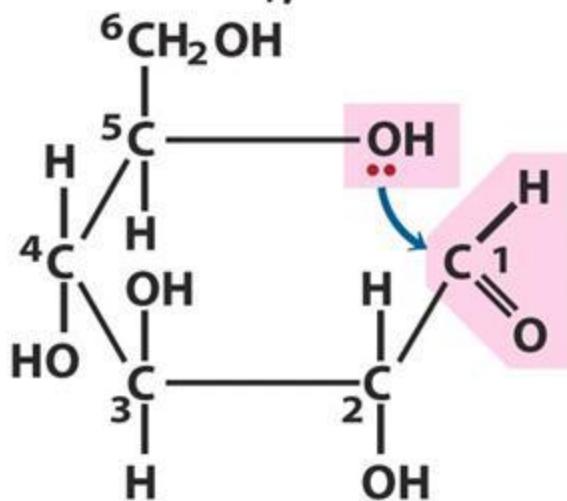
D- тагатоза

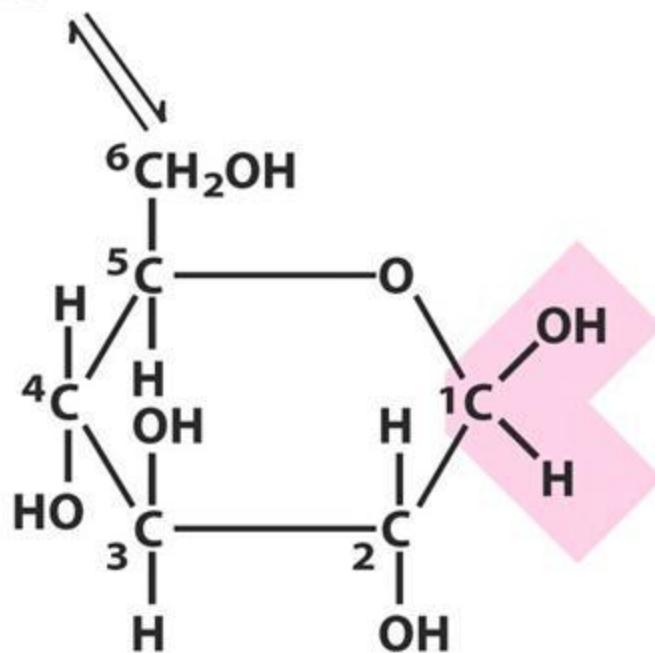
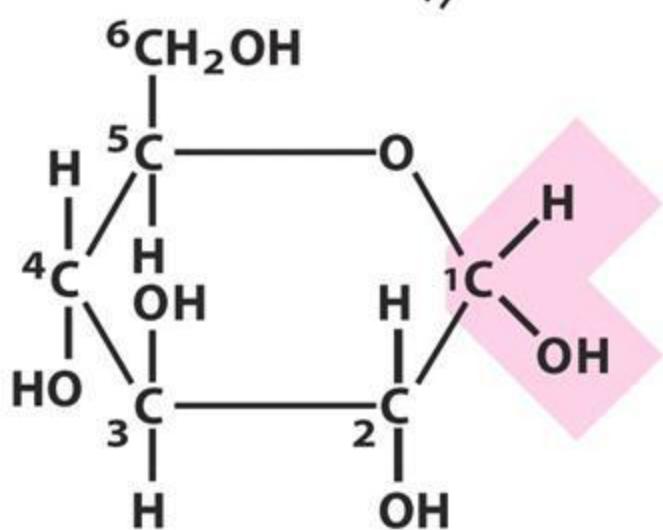
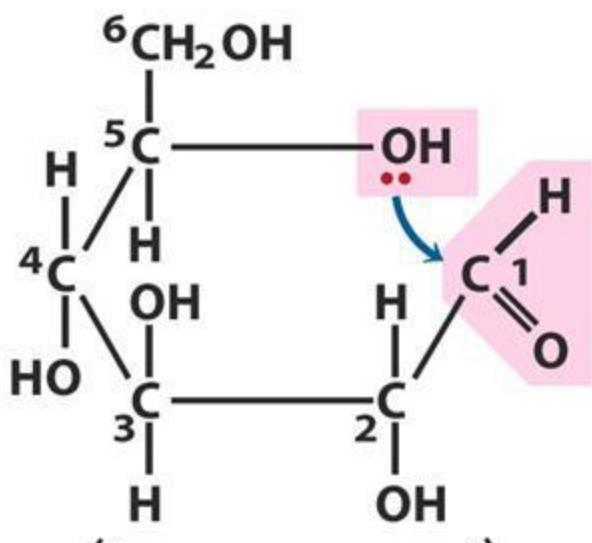


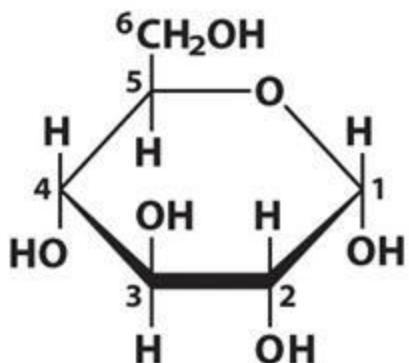




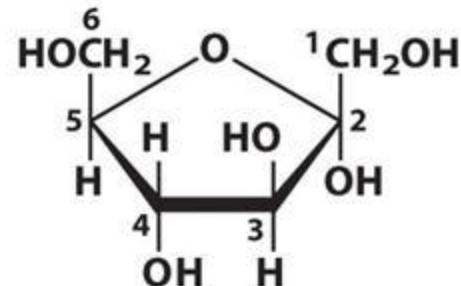
**ГЛЮКОЗА**



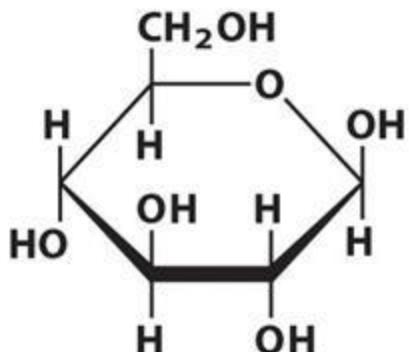




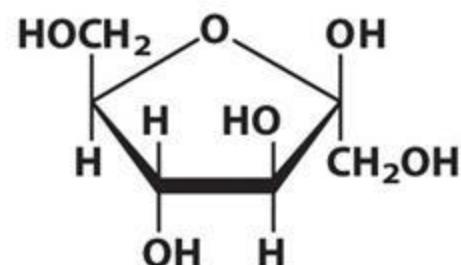
$\alpha$ -D-глюкопираноза



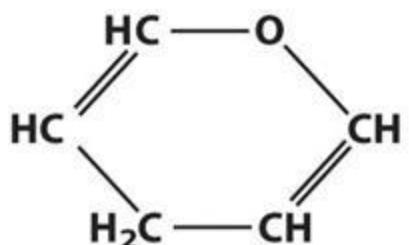
$\alpha$ -D-фруктофураноза



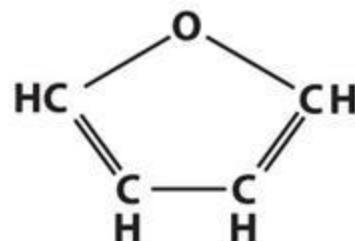
$\beta$ -D-глюкопираноза



$\beta$ -D-фруктофураноза

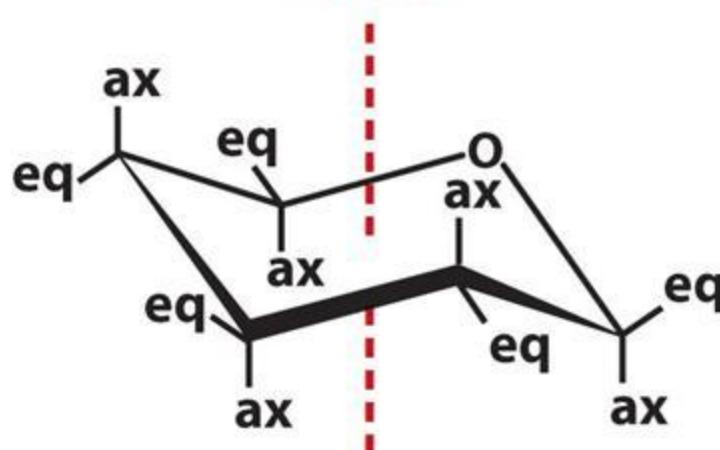


пиран

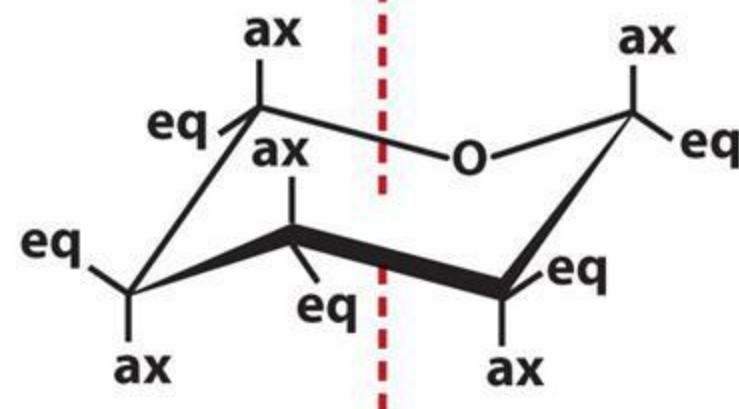


фуран

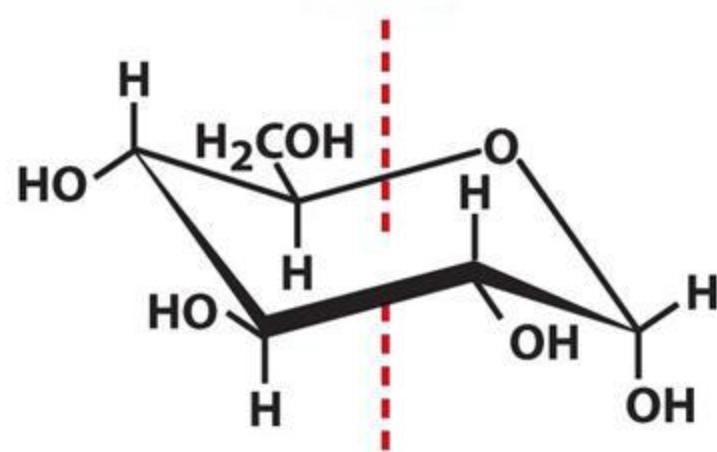
**ось**



**ось**

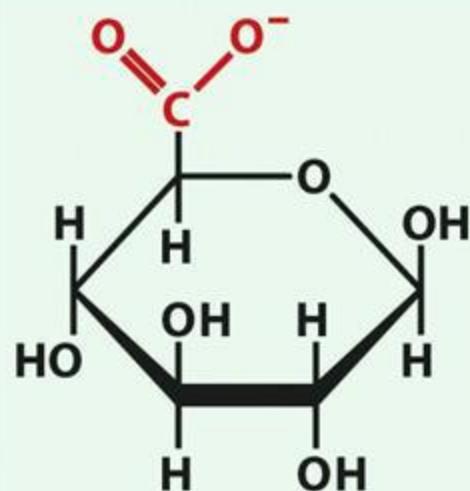


**ось**

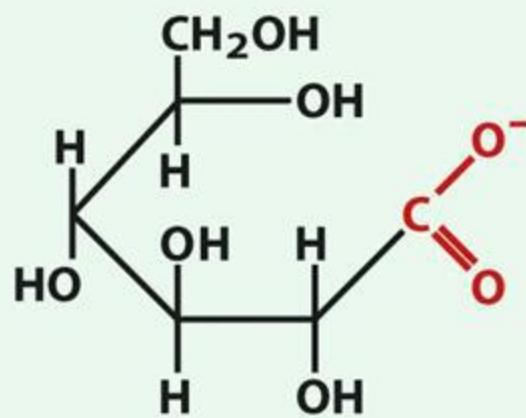


$\alpha$  -D- глюкопираноза

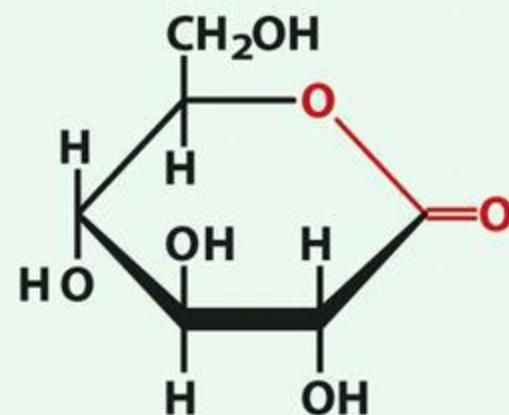
## сахарные кислоты



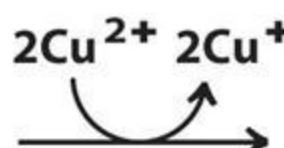
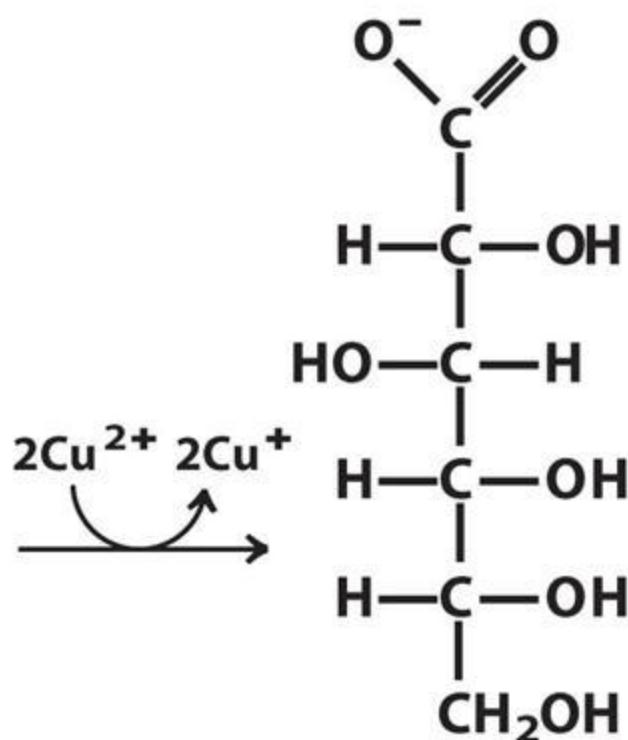
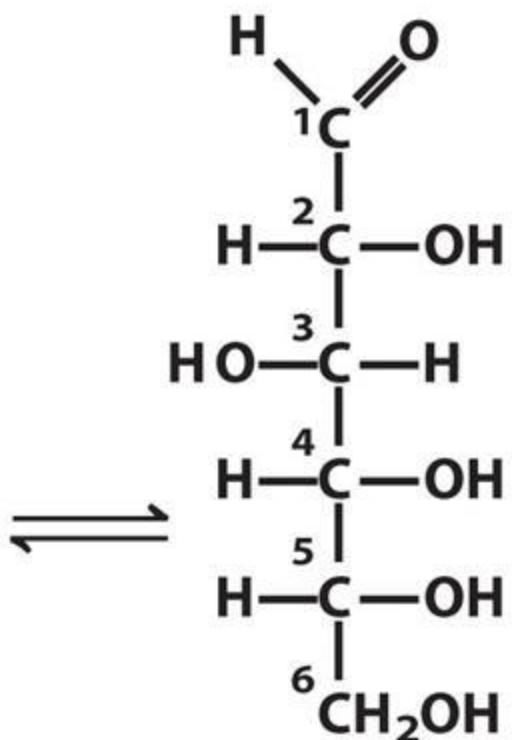
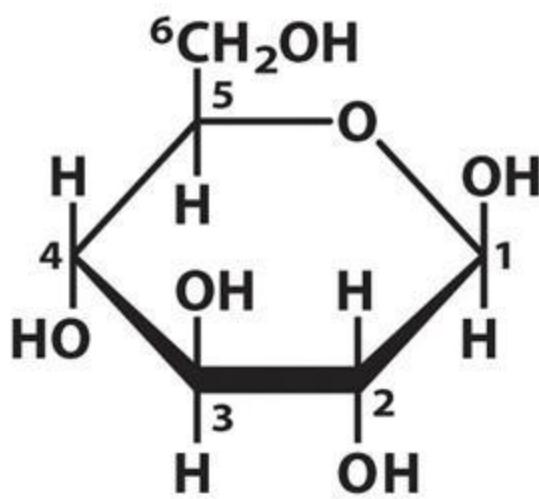
$\beta$ -D-глюкуронат



D-глюконат



D-глюконо- $\delta$ -лактон

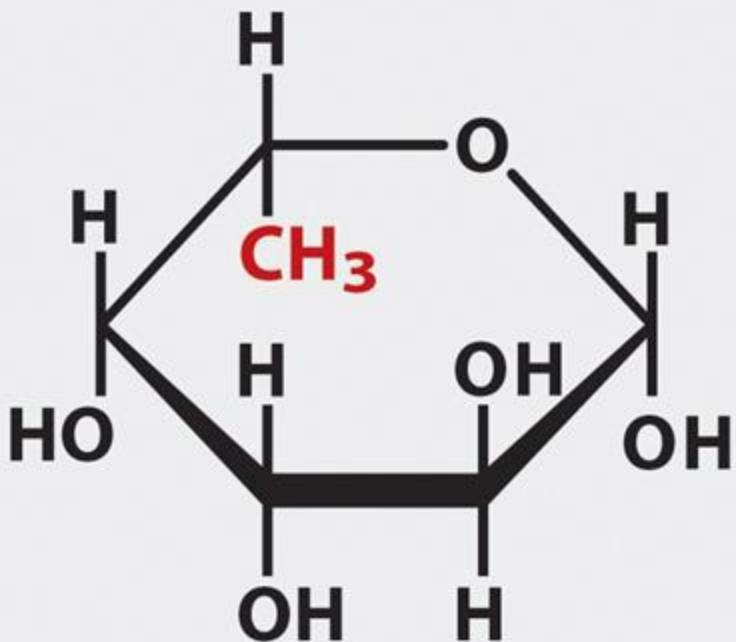


**ГЛЮКОЗО-  
ОКСИДАЗА**

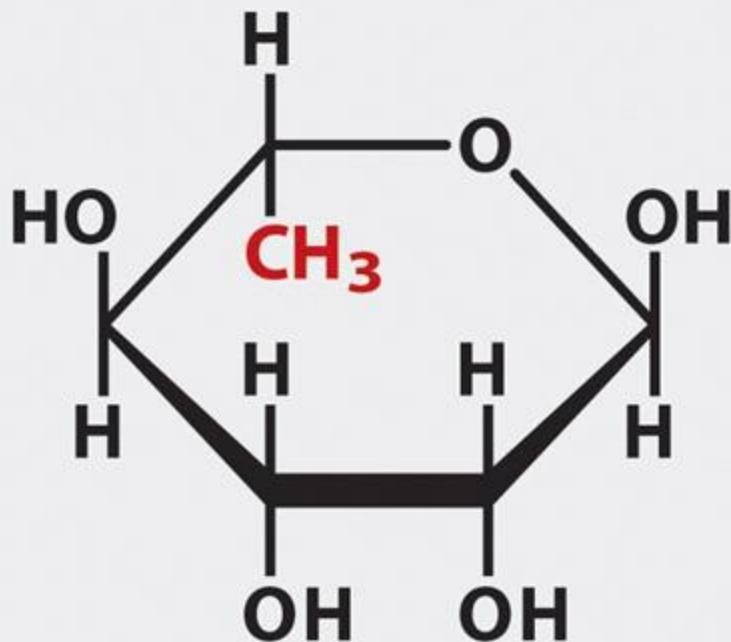


(циклическая)

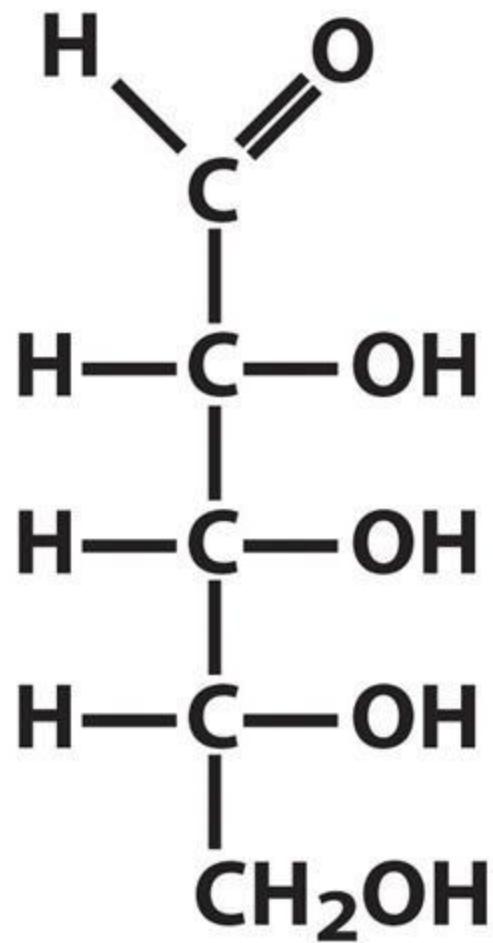
# Дезоксисахара



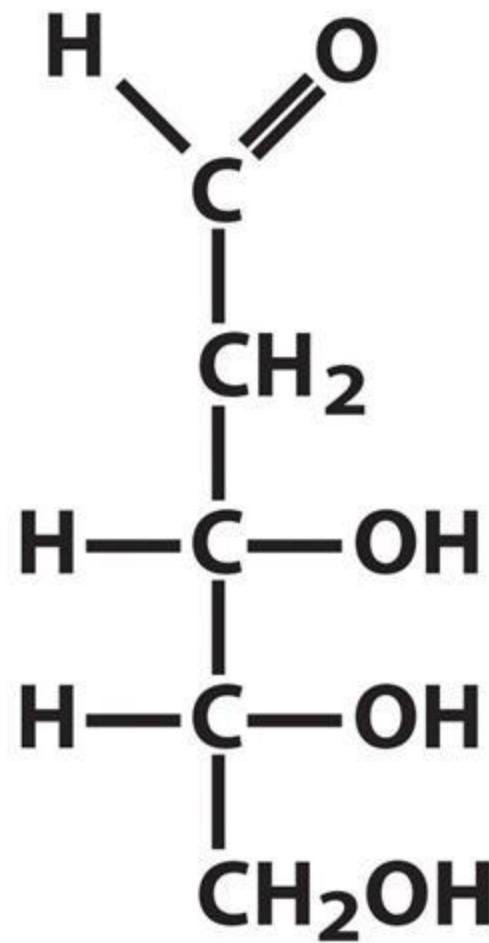
$\beta$ -L-фукоза



$\alpha$ -L-рамноза

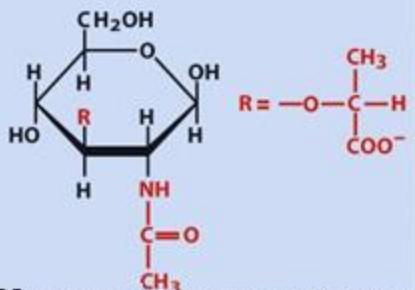
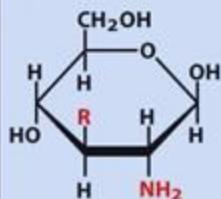
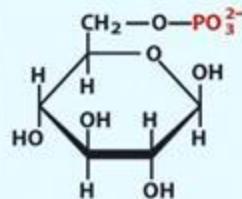
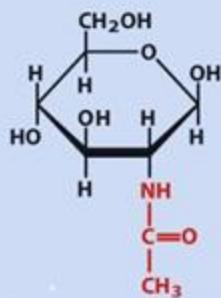
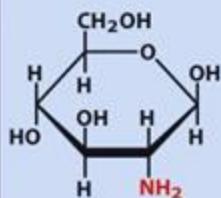
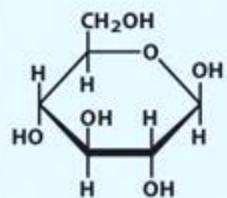


D-рибоза  
альдопентоза

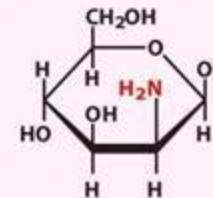
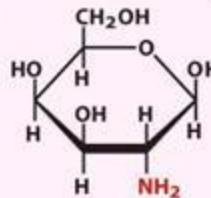


2-дезокси-D-рибоза  
дезоксипентоза

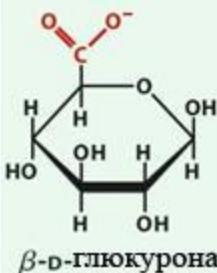
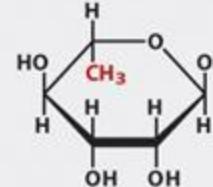
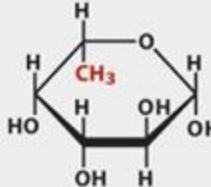
## семейство глюкозы



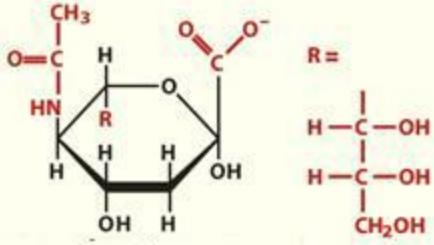
## аминосахара



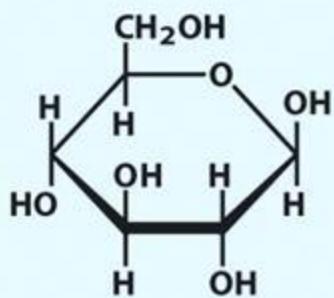
## дезоксисахара



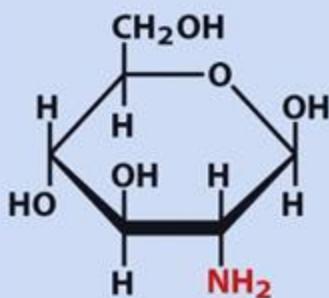
## кислые сахара



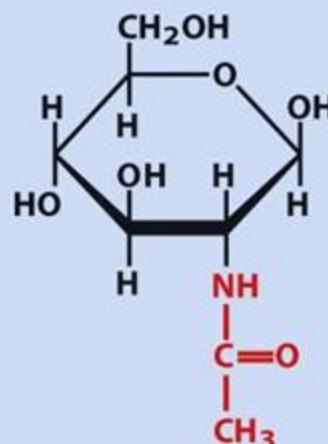
## семейство глюкозы



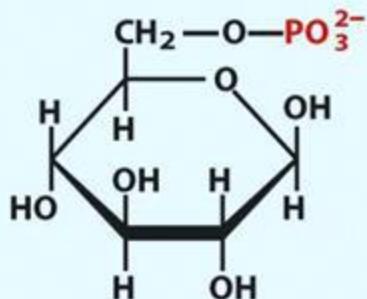
β-D-глюкоза



β-D-ГЛЮКОЗАМИН



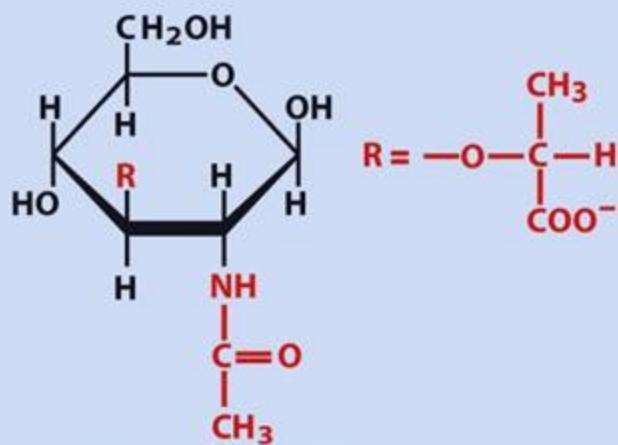
N-ацетил-β-D-глюкозамин



β-D-глюкозо-  
6-фосфат

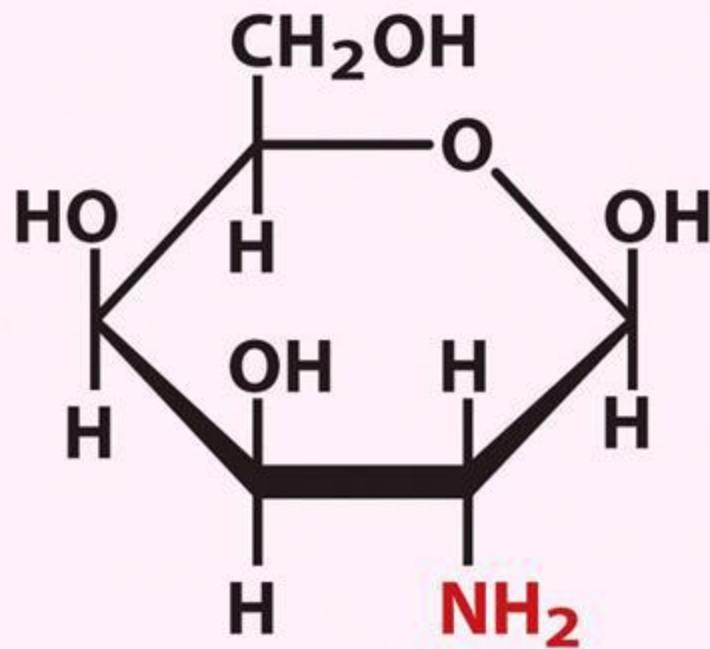


мурамовая к-та

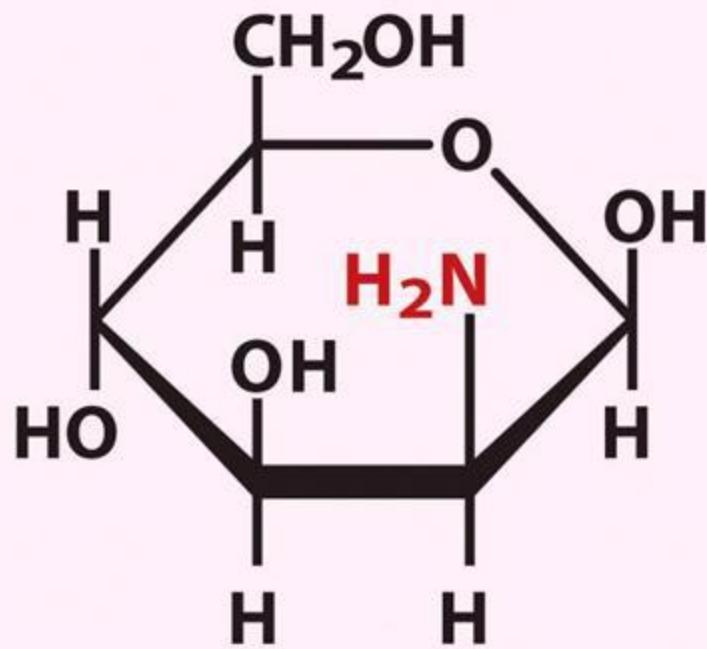


N-ацетил-мурамовая к-та

# Аминосахара

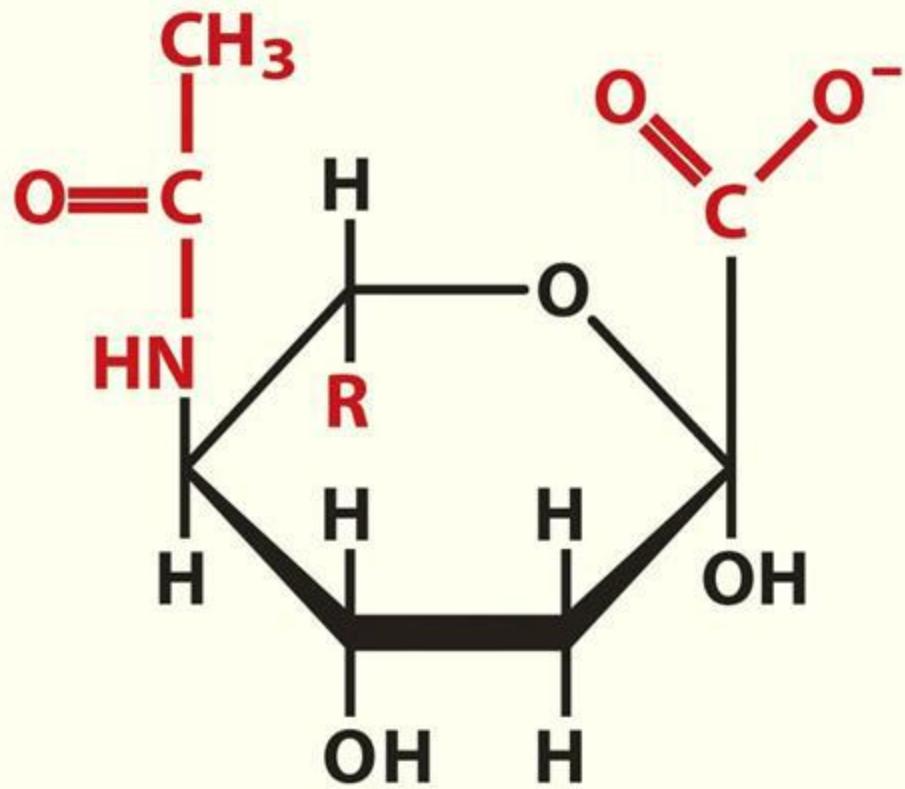


$\beta$ -D- галактозамин

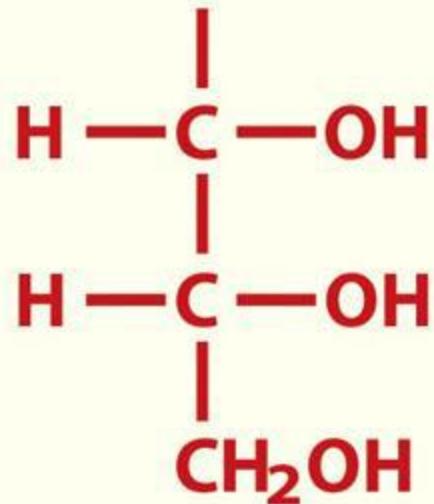


$\beta$ -D- маннозамин

# Кислые сахара



$\text{R} =$



**N-ацетил-нейраминовая кислота  
(сиаловая кислота)**