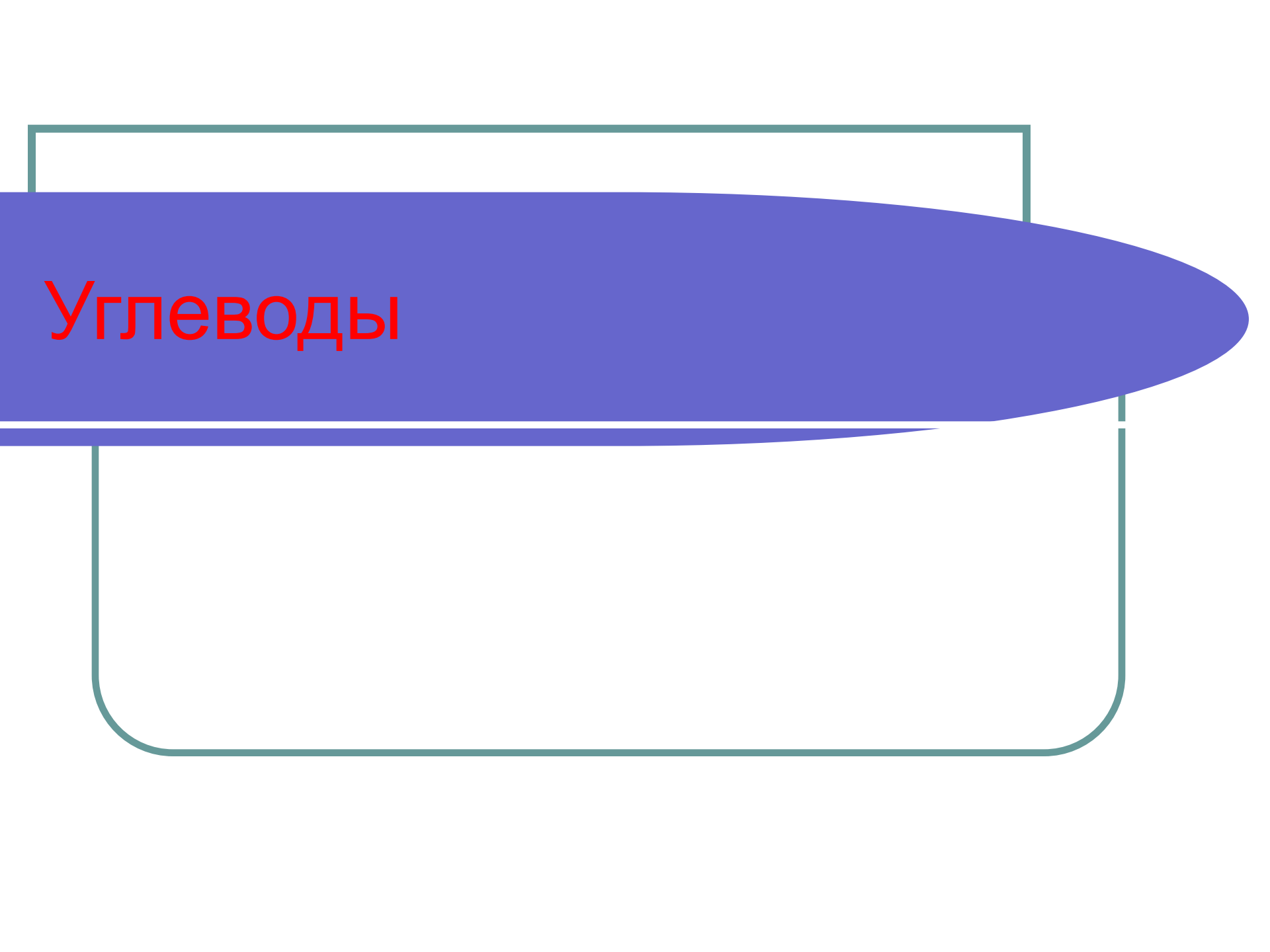




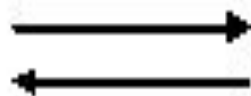
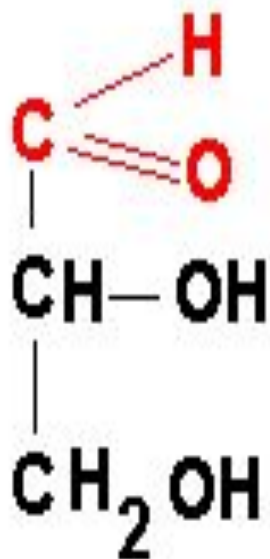
Углеводы

План

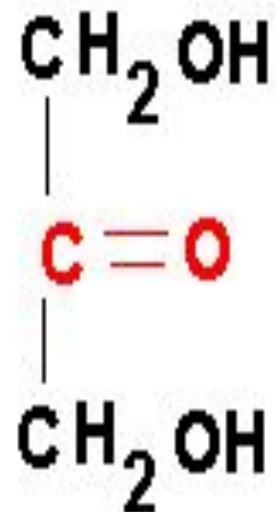
- Общие представления об углеводах
- Аномалии линейной структуры
- Химические свойства
- Дисахариды
- Полисахариды

Триозы

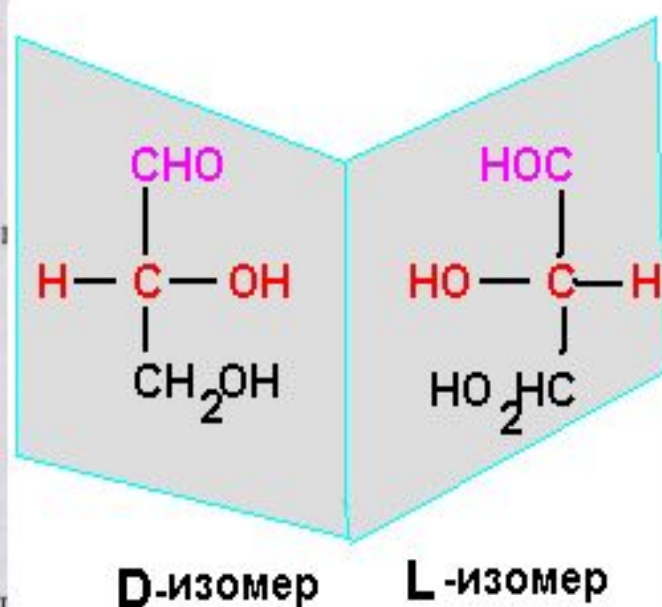
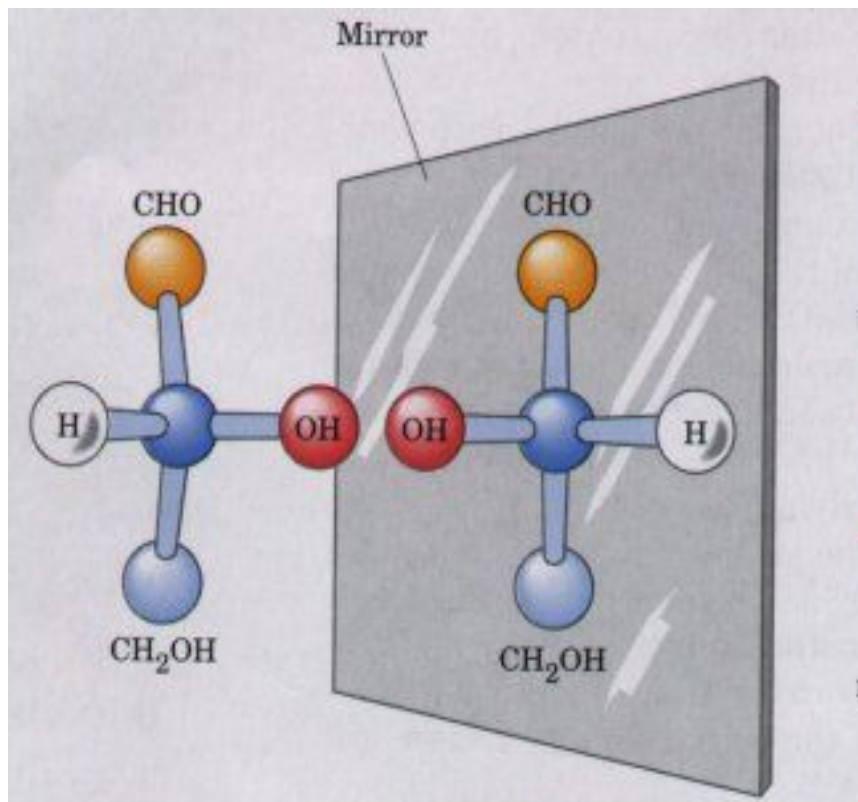
глицеральдегид



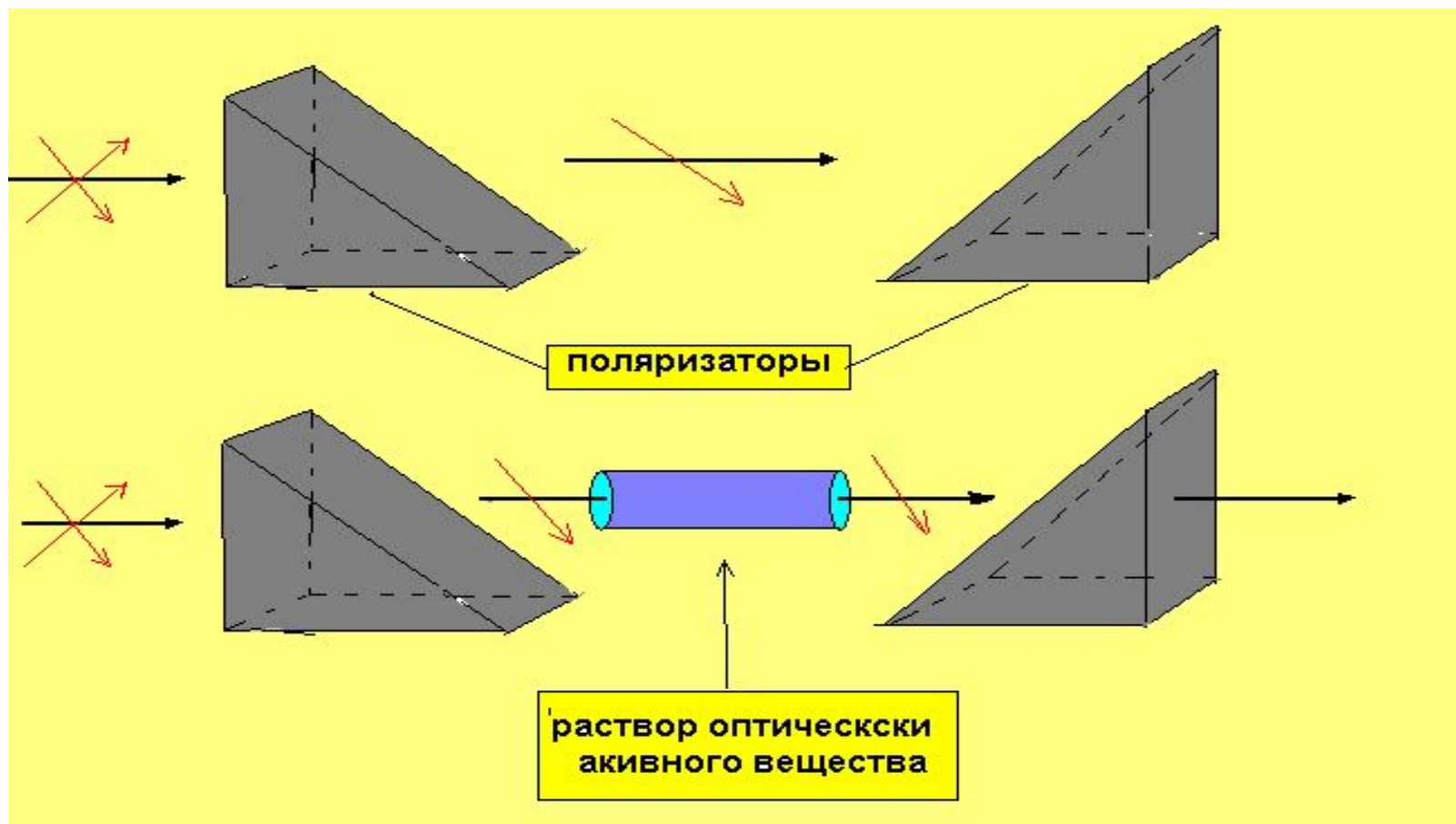
диоксиацетон



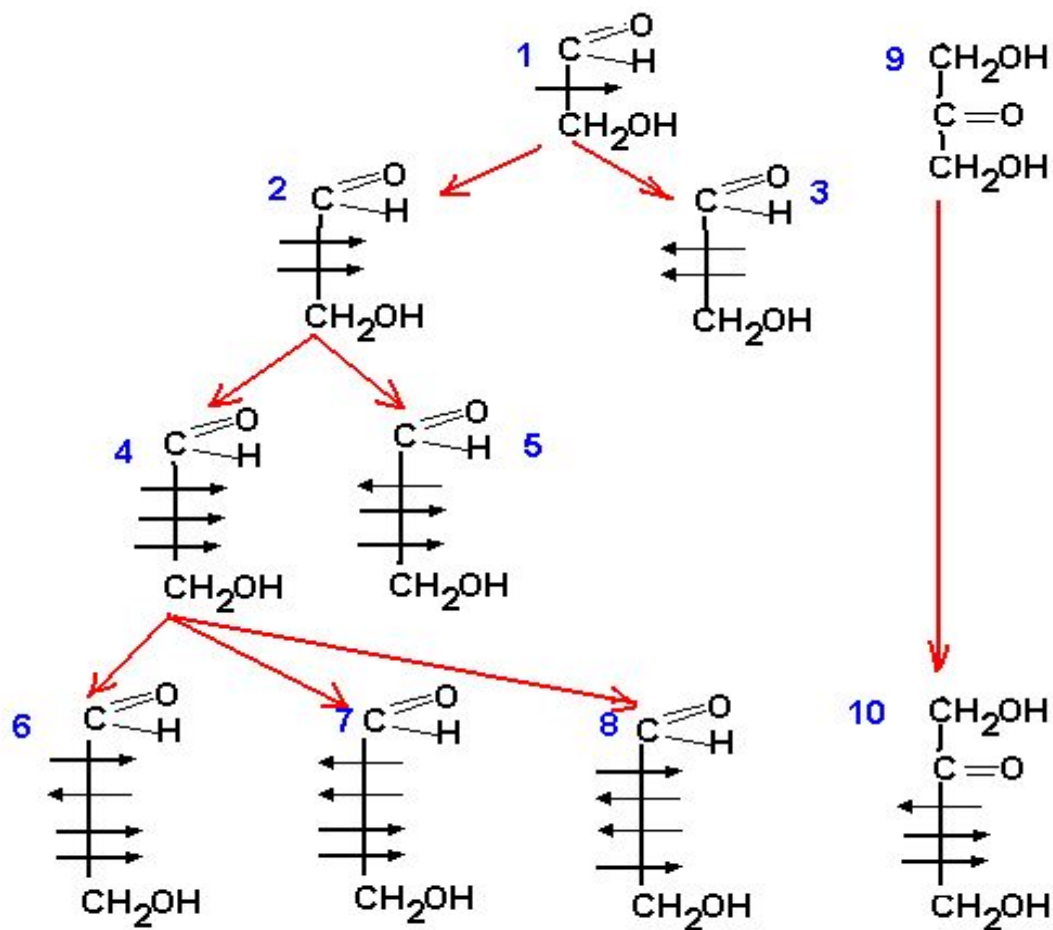
Зеркальная изомерия



Оптическая активность



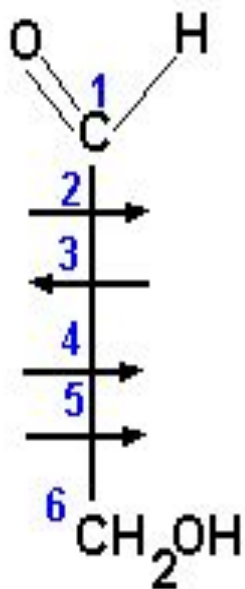
Важнейшие моносахариды



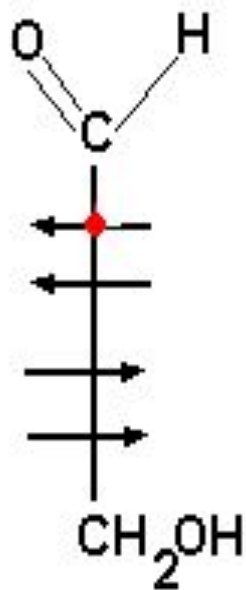
- 1-глицеральдегид
- 2-эритроза
- 3-треоза
- 4-рибоза
- 5-арабиноза
- 6-глюкоза
- 7-манноза
- 8-галактоза
- 9-диоксиацетон
- 10-фруктоза

Эпимеры

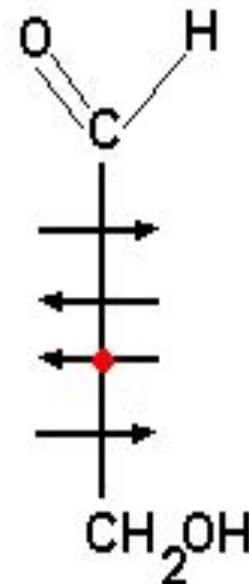
ЭПИМЕРЫ



глюкоза

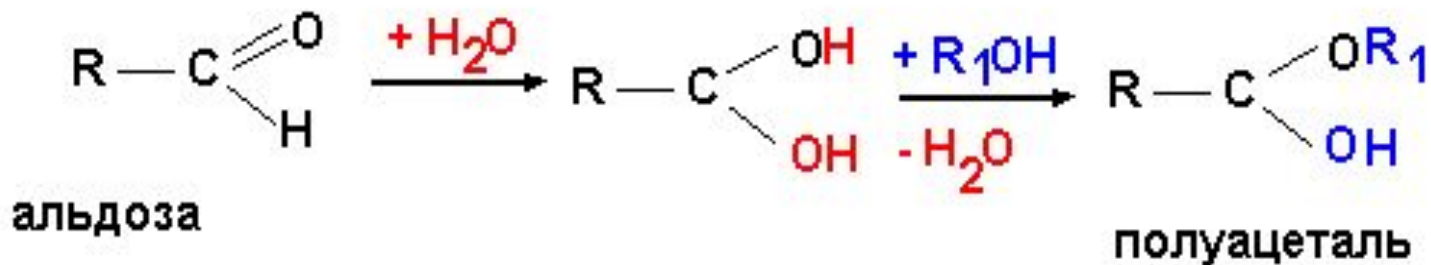
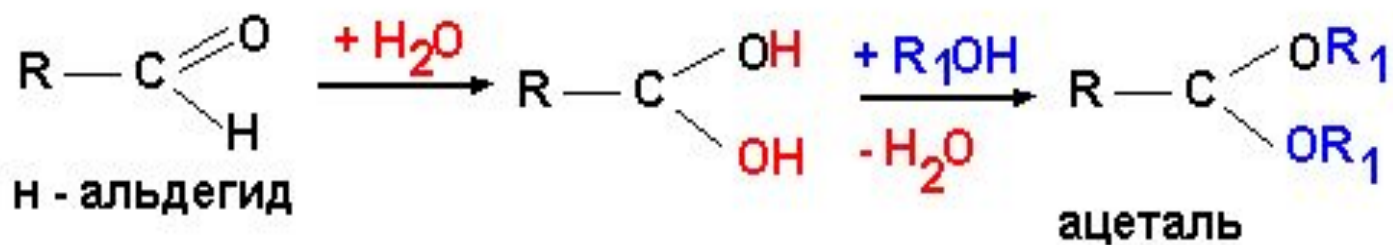


манноза

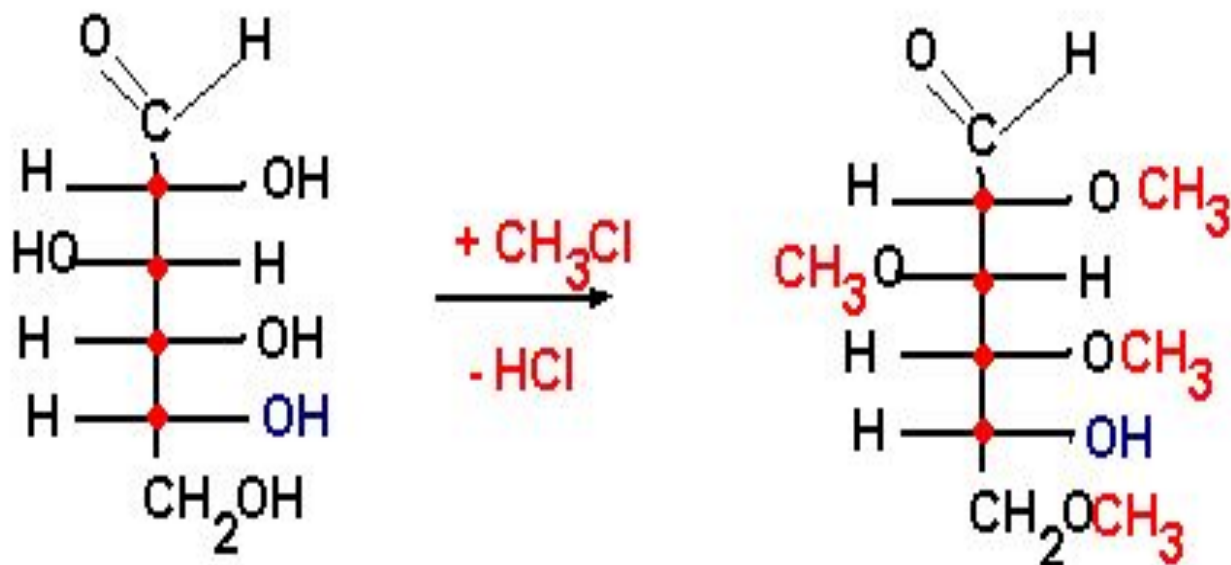


галактоза

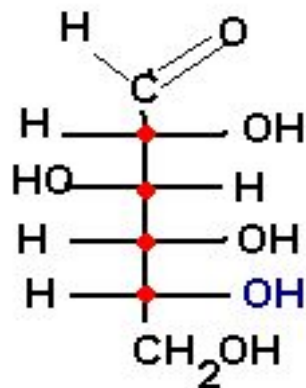
Образование полуацеталей



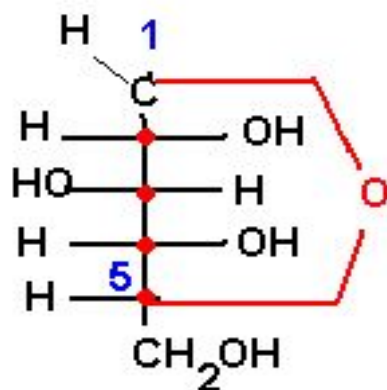
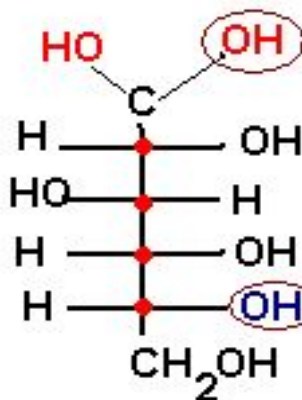
Метилирование альдоз



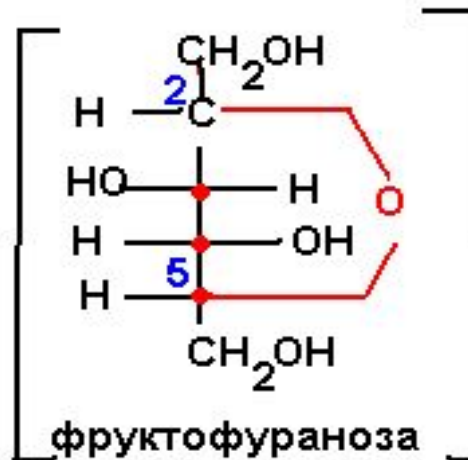
Формулы Толленса



глюкоза

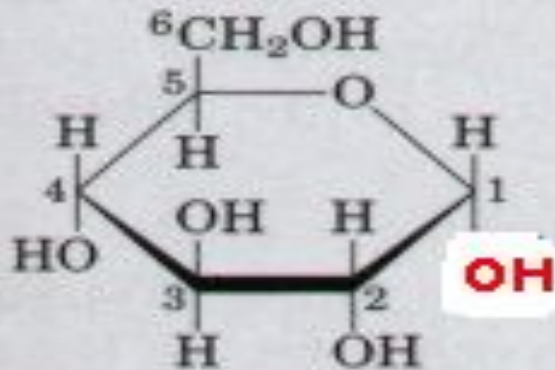


глюкопираноза

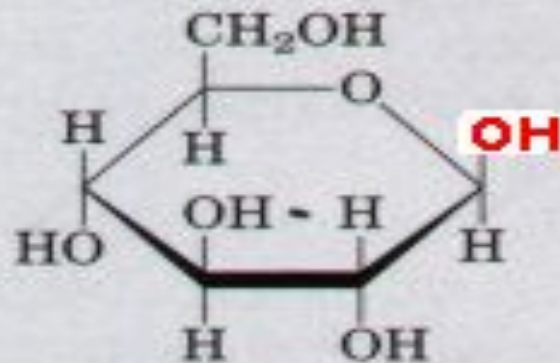


фруктофураноза

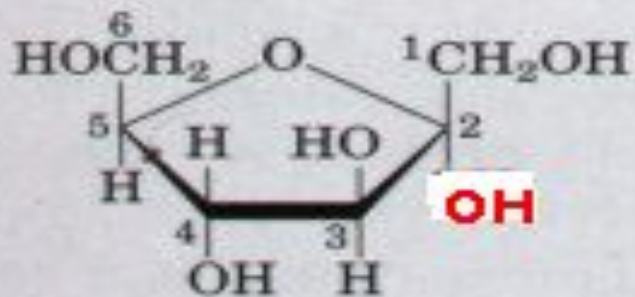
Циклы Хеорса



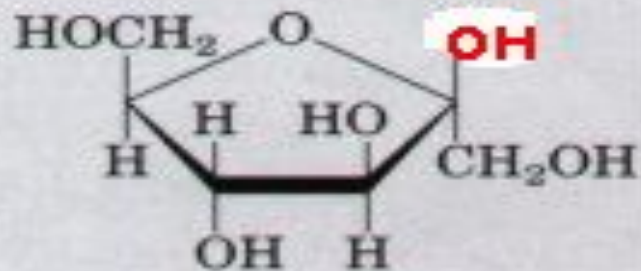
α -D-Glucopyranose



β -D-Glucopyranose

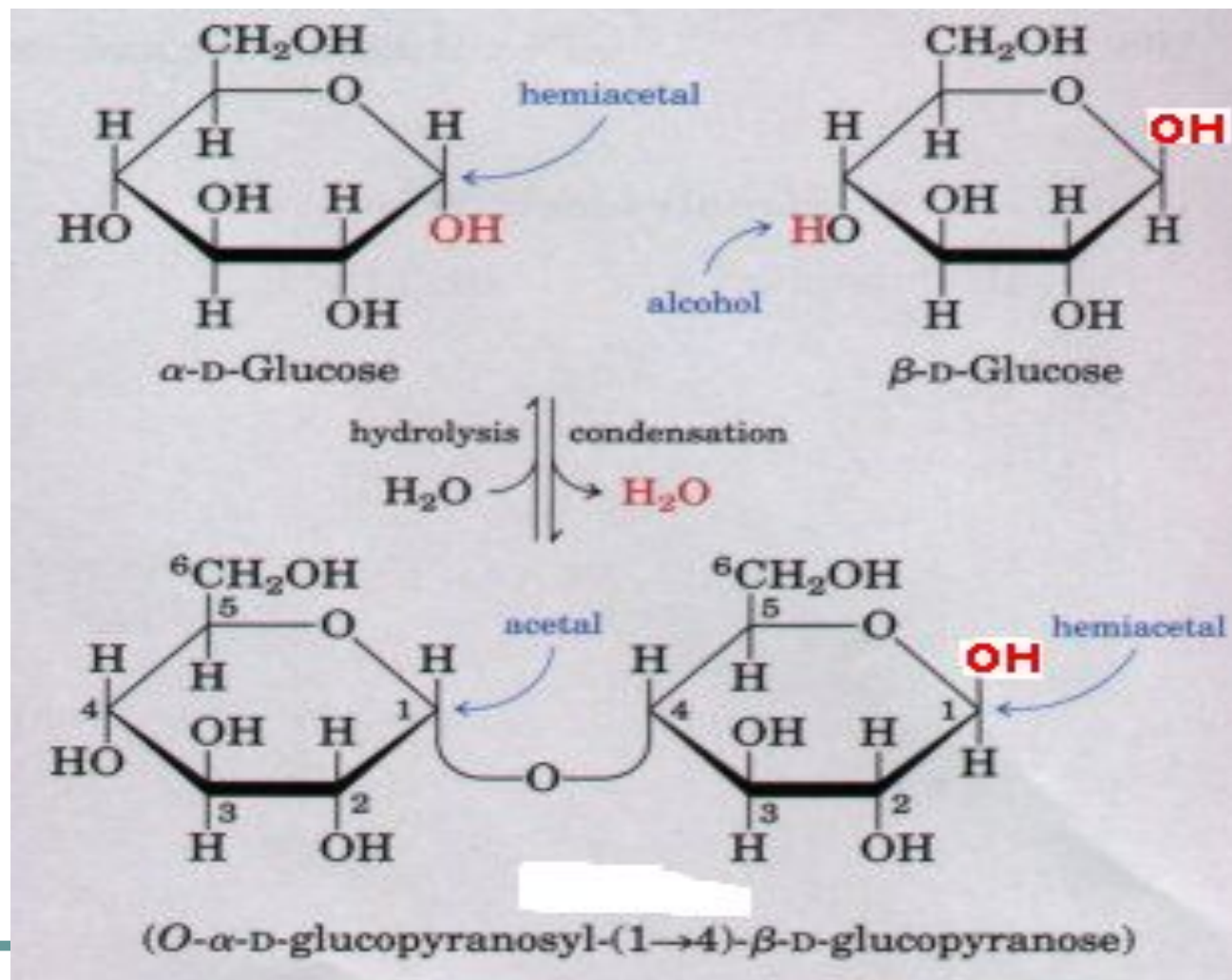


α -D-Fructofuranose

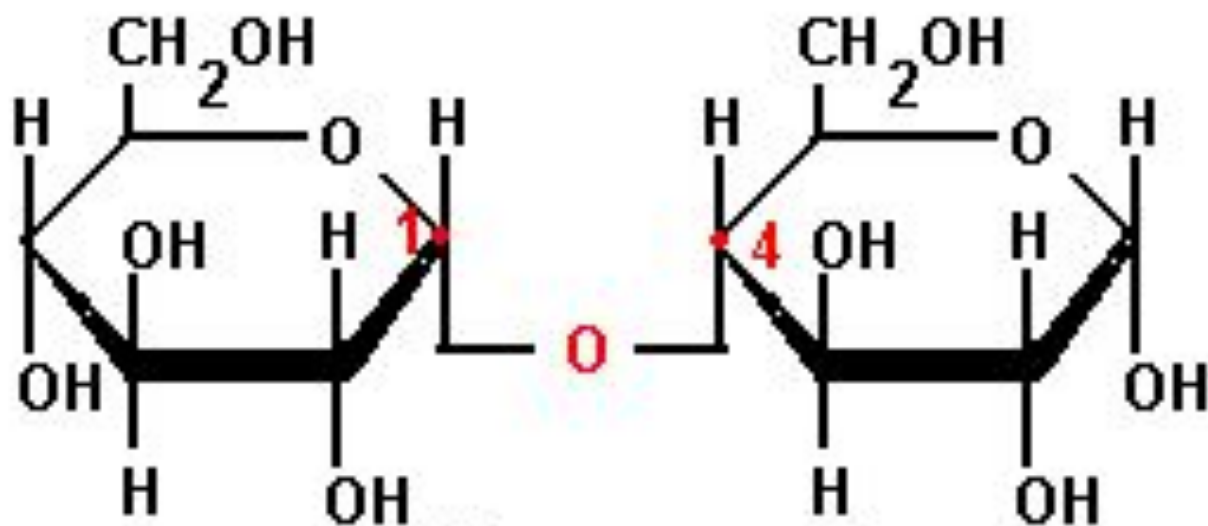


β -D-Fructofuranose

Дисахариды



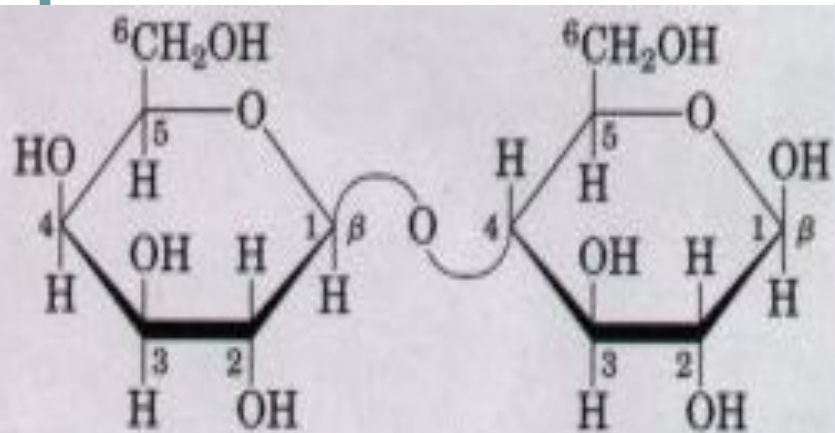
Мальтоза



Мальтоза

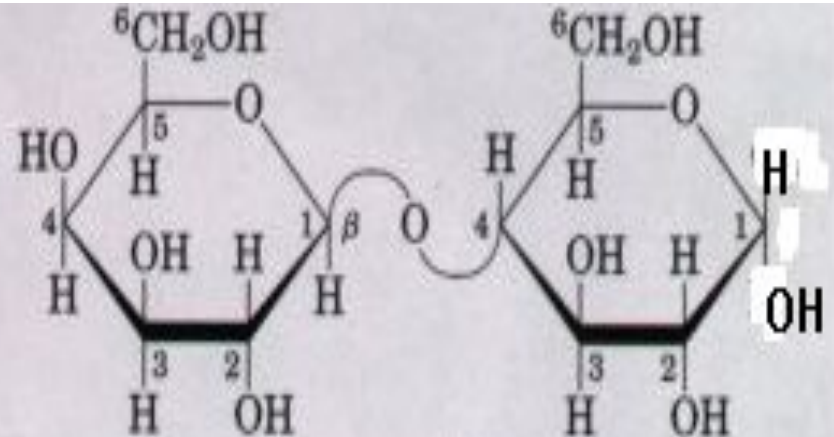
α D-глюкопиранозил(1-4) α D-глюкопираноза

Лактоза



Lactose (β form)

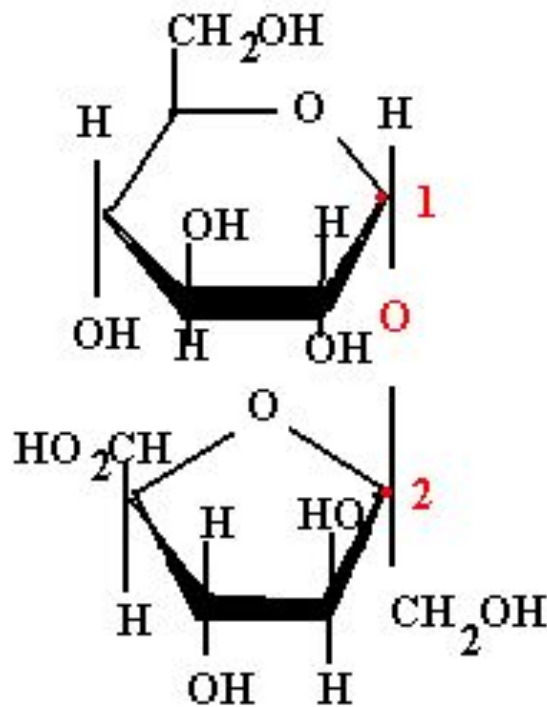
(*O*- β -D-galactopyranosyl-(1 $\rightarrow$ 4)- β -D-glucopyranose)
(Gal(β 1 $\rightarrow$ 4)Glc)



Lactose (α form)

(*O*- β -D-galactopyranosyl-(1 $\rightarrow$ 4)- β -D-glucopyranose)
(Gal(β 1 $\rightarrow$ 4)Glc)

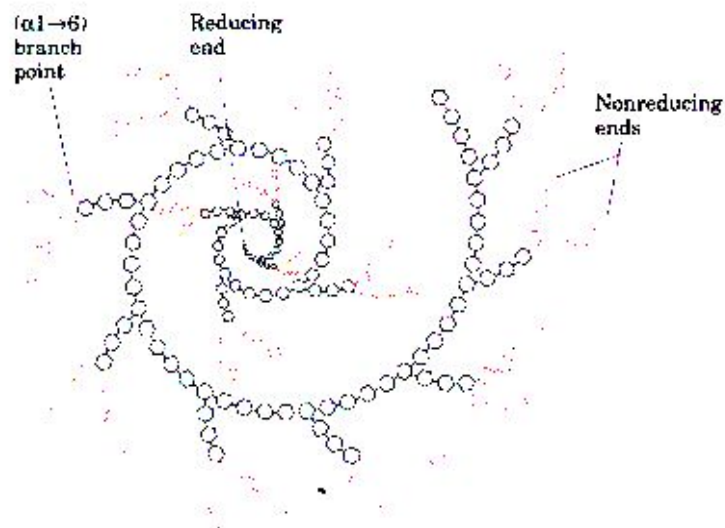
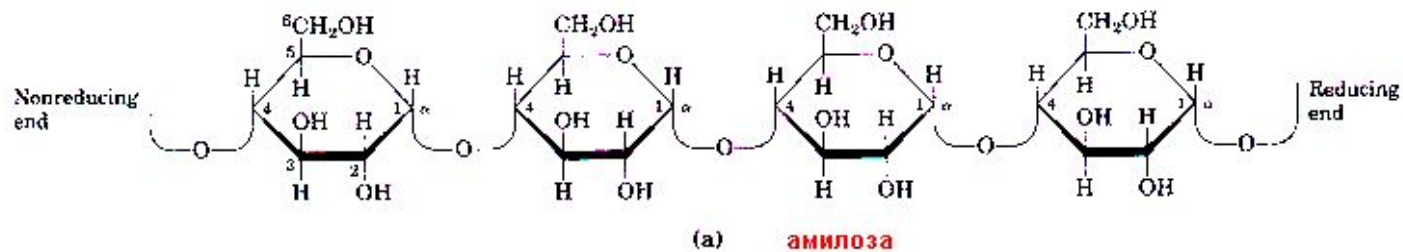
Сахароза



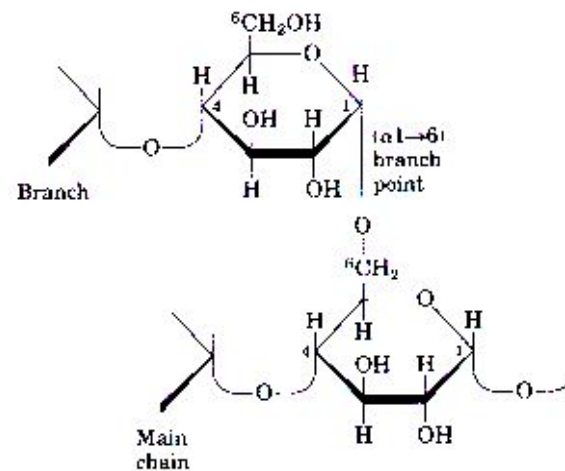
САХАРОЗА

α -D-глюкопиранозил(1-2) β -D-фруктофураноза

Крахмал

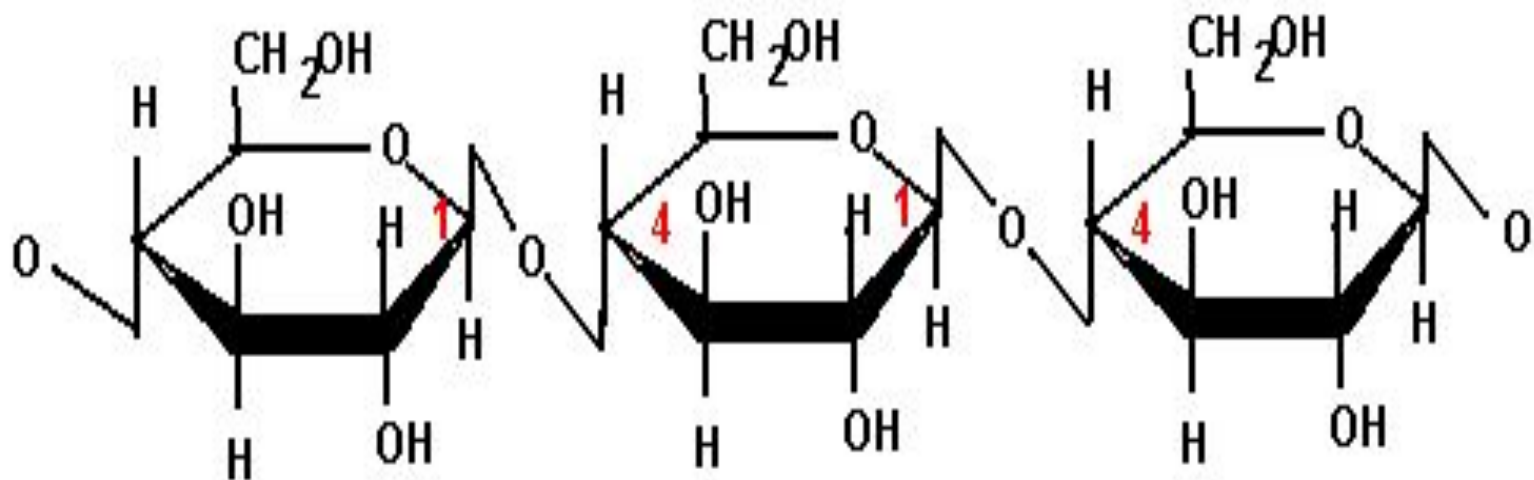


(b) **амилопектин**

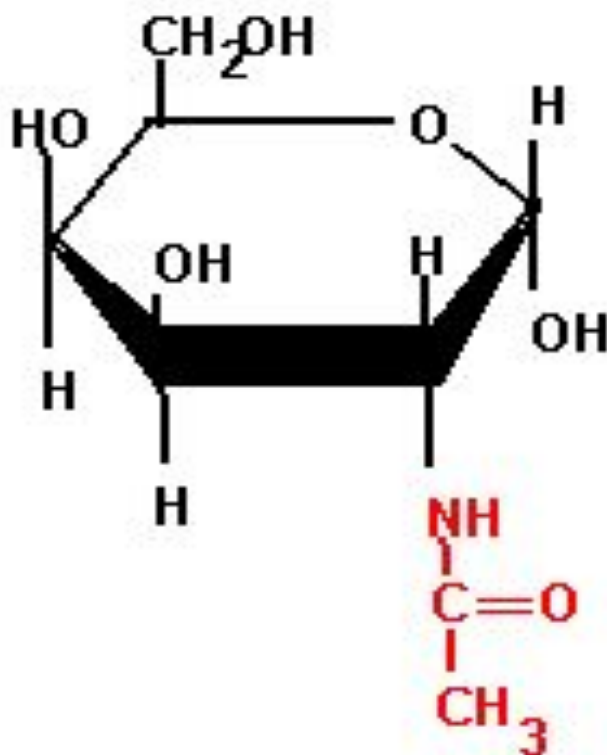


(c)

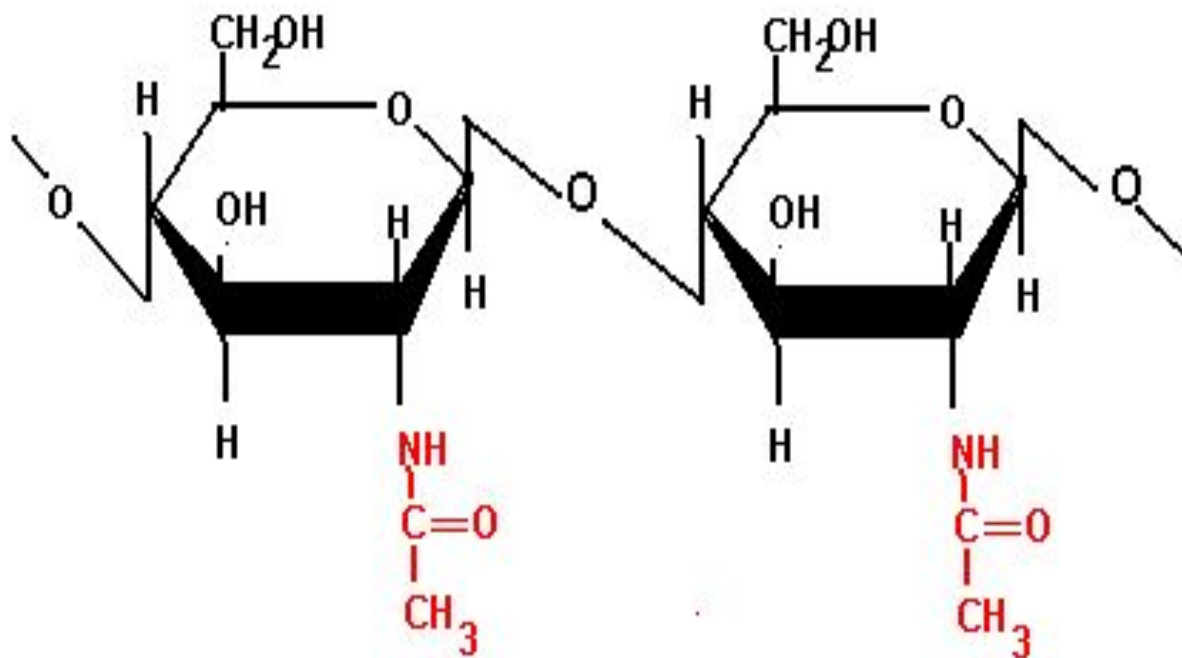
Целлюлоза



N-ацетил-D-галактозоамин



N-ацетил –D-глюкозоамин



β - 1-4 гликозидная связь