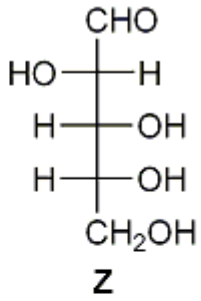
Preview Assessment: 326WS14 Part 1

Name	326WS14 Part 1
Instructions	
Multiple Attempts	This Test allows multiple attempts.
Force Completion	This Test can be saved and resumed later.

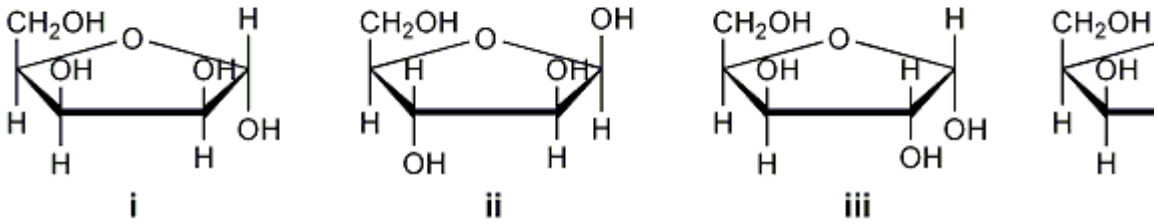
Question Completion Status:

Question 1

Which of the following compounds represents the hemiacetal form of the open chain monosaccharide



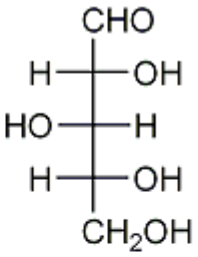
Z



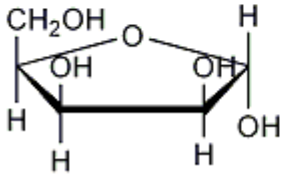
- i
- ii
- iii
- iv
- v

Question 2

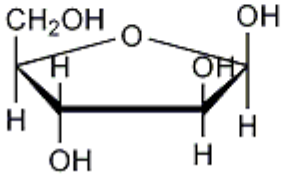
Which of the following compounds represents the hemiacetal form of the open chain monosaccharide



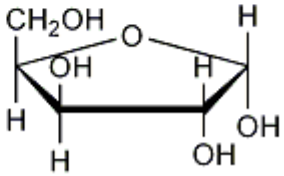
Y



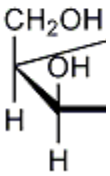
i



ii



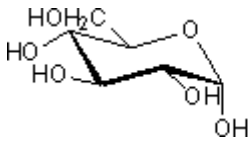
iii

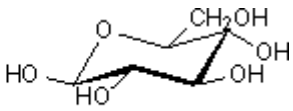


- i
- ii
- iii
- iv
- v

Question 3 **1 points** Save

What is the relationship between the following compounds?

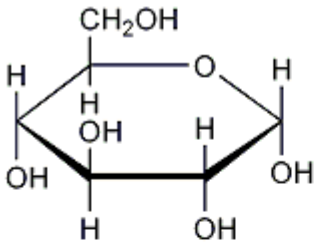




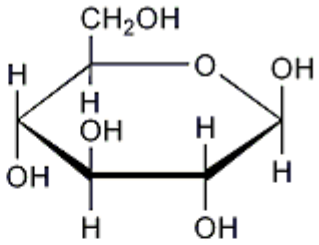
- Enantiomers.
- Identical compounds.
- Anomers.
- Diastereomers.
- Constitutional isomers.

Question 4

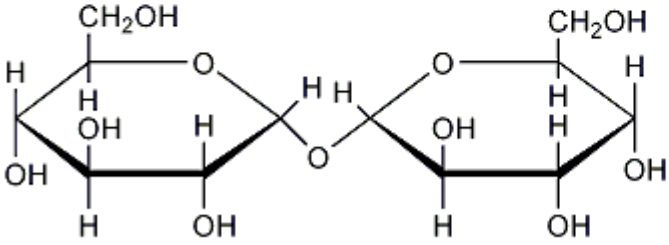
Which of the following sugars undergo mutarotation in neutral aqueous solution?



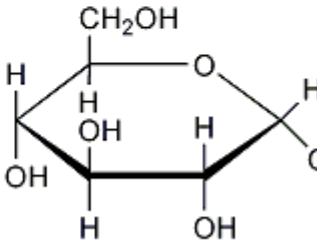
i



ii



iv



- i and iii
- iii and iv
- ii, iii and iv
- i and iv
- i, ii and v

Question 5 **1 points** Save

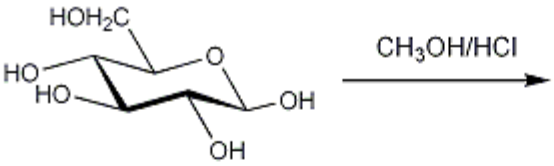
What is the ratio of products formed by the reaction of periodic acid (H_5IO_6) with D-glucose?

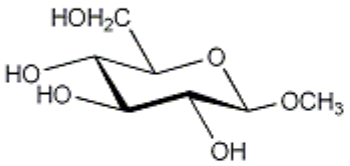
	$H_2C{=}O$	HCO_2H	CO_2
i	5	1	0
ii	3	3	0
iii	1	5	0
iv	1	4	1
v	0	4	2

- i
- ii
- iii
- iv
- v

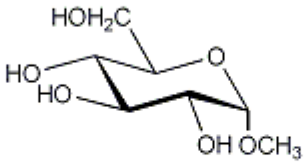
Question 6

Predict the structure(s) of the product(s) formed when β-D-glucose reacts with methanol under acidic

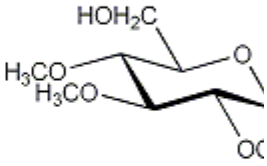




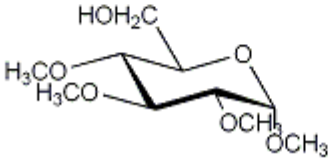
i



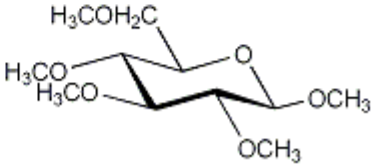
ii



iii



iv

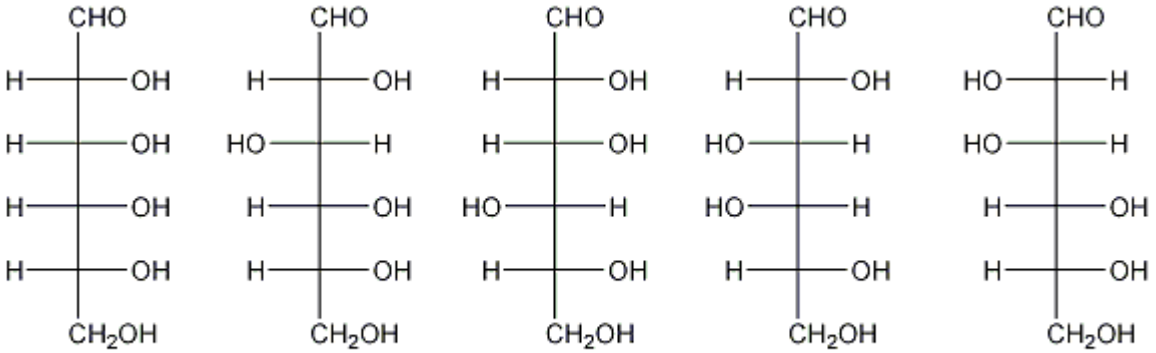


v

- i
- i and ii
- iii
- iii and iv
- v

Question 7

Choose D-aldohexoses (shown below) that give the same D-aldopentose when subjected to the Ruff (removal of C1 along with the conversion of C2 to the aldehyde).

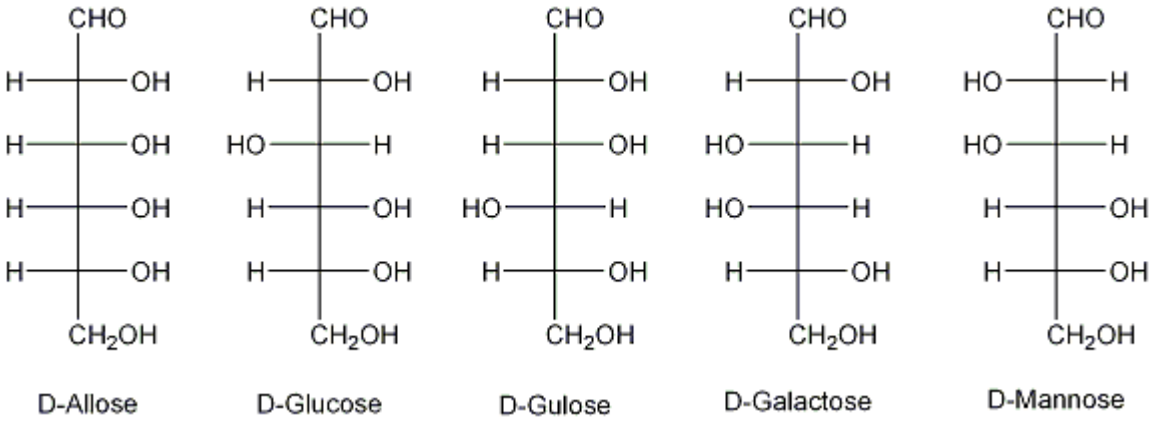


- D-glucose and D-mannose

- D-allose and D-glucose
- D-gulose and D-galactose
- D-mannose and D-talose
- D-glucose and D-gulose

Question 8

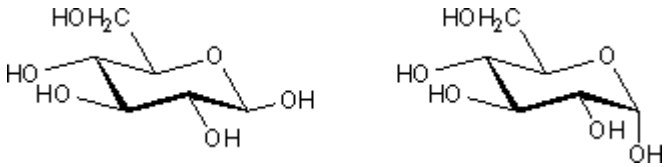
Choose two D-aldohexoses (shown below) that when treated with $NaBH_4$ give enantiomers of each o



- D-glucose and D-mannose
- D-allose and D-glucose
- D-gulose and D-galactose
- D-mannose and D-talose
- D-glucose and D-gulose

Question 9 **1 points** Save

Choose the **incorrect** statement(s) about the α-D-glucopyranose and β-D-glucopyranose shown below.

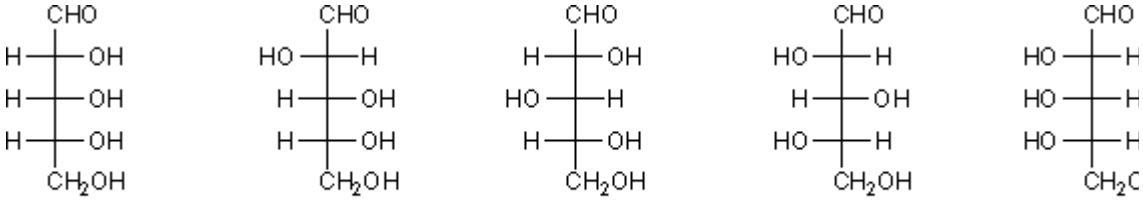


i. They both are hemiacetals.
ii. They both have the same melting point.
iii. They both react with NaBH4 to give the same compound

- All of the above.
- None of the above.
- i
- ii
- iii

Question 10 1

Which of the following compounds are L-sugars?



i **ii** **iii** **iv** **v**

- ii and iv
- i, ii and iii
- i and v
- iii, iv and v
- iv and v

Save Submit