



CHEMISTRY

BOOKS - MS CHOUHAN CHEMISTRY (HINGLISH)

CARBOHYDRATES

Solved Problem

1. In neutral or basic solutions, glycosides do not show mutarotation. However, if the

solutions are made acidic, glycosides show mutarotation. Explain.



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Single Correct Choice Type

1. Cellulose is a polymer of

A. glucose

B. fructose

C. ribose

D. sucrose

Answer: A



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2. Glucose molecule reacts with X number of molecules of phenylhydrazine to yield osazone. The value of X is

A. three

B. two

C. one

D. four

Answer: A



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3. All monosaccharide _____ Tollen's reagent.

A. oxidizes

B. reduces

C. condense with

D. add to

Answer: B



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4. Which of the following statements is not true about glucose?

A. It is an aldohexose

B. On heating with HI, it forms n-hexane

C. It is present in furanose form

D. It does not give 2,4-DNP test

Answer: C



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5. The pair of compounds in which both the compounds give positive test with Tollen's reagent is

A. glucose and sucrose

B. fructose and sucrose

C. acetophenone and hexanal

D. glucose and fructose

Answer: D



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6. Identify the pair of epimers in the following.

A. D-Glucose and D-Fructose

B. D-Glucose and L-Glucose

C. D-Glucose and D-Mannose

D. D-Glucose and D-Glucose

Answer: C



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7. Cellulose upon acetylation with excess acetic anhydride/ H_2SO_4 (catalytic) gives cellulose triacetate whose structure is

A. 

B. 

C. 

D. 

Answer: A

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8. In what structural form does D-glucose exist predominantly?

A. 

B. 

C. 

D. 

Answer: C

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9. Which of following is an oligosaccharide?

A. Glucose

B. Fructose

C. Sucrose

D. Starch

Answer: C



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10. Which of the following pairs will form the same osazone?

A. D-Glucose, D-Allose

B. D-Glucose, D-Altrose

C. D-Allose, D-Altrose

D. D-Fructose, D-Galactose

Answer: C



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11. Hydrolysis of (+)-sucrose (ordinary table sugar) yields

A. D-glucose

B. D-fructose

C. D-galactose

D. More than one of the above

Answer: D



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Multiple Correct Choice Type

1. Which of the following are D sugars?

A. 

B. 

C. 

D. 

Answer: A::C::D

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Multiple Correct Choice Type Integer Type

1. How many compounds from the following list are isomers of D-glucose?

D-Mannose, D-Fructose, D-Glucose, D-Idose, D-Galactose,
D-Arabinose, D-Ribose



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