Unit 12 - Week 10

Course outline

- How does an NPTEL online course work?
- Week 0 Assignment 0
- Week 1
- Week 2
- Week 3
- Week 4
- Week 5
- Week 6
- Week 7
- Week 8
- Week 9
- Week 10
  - Lecture 21 : Carbohydrates - I
  - Lecture 22 : Carbohydrates - II
  - Quiz : Week 10 Assignment 10
  - Lecture material of Week 10
  - Week 10 Feedback Form
- Week 11
- Week 12
- Download Videos
- Detail Solution
- Live Interactive Session

Week 10 Assignment 10

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2020-04-08, 23:59 IST.

1) What are the main functional groups present in carbohydrates? *1 point*

a) Alcohol & carbonyl groups
b) Hydroxyl groups & amine groups
c) Aldehyde & ketone groups only
d) Carboxyl groups & amine groups

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
a)

2) Which among the following is **NOT** an aldohexose? *1 point*

a) Glucose
b) Fructose
c) Mannose
d) Galactose

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
b)

3) Which among the following is a pentose sugar? *1 point*

a) Glucose
b) Fructose
c) Ribose
d) Galactose

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
c)

4) The reference compound for naming D and L isomers of sugars is *1 point*

a) Fructose
b) Glyceraldehyde
c) Ribose
d) Glucose

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
b)

5) Carbohydrates that have different stereochemistry only at one carbon atom are called *1 point*

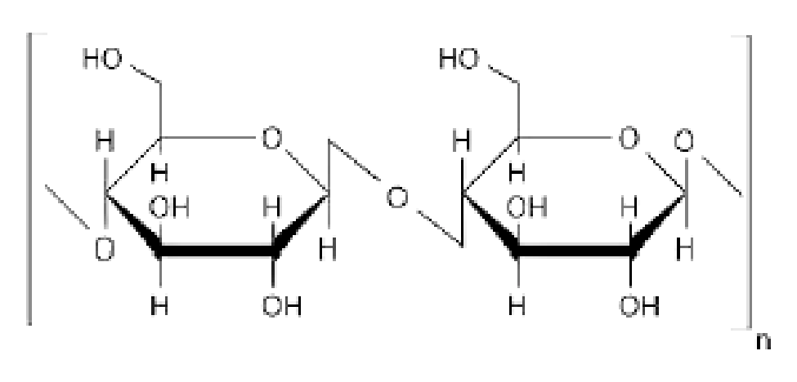
a) Epimers
b) Anomers
c) Constitutional isomers
d) Enantiomers

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
a)

6) A structural representation of cellulose is shown below. *1 point*



Choose the correct answer. The bond joining the monosaccharide unites is a:

a) α (1,2) glycosidic bond
b) β (1,6) glycosidic bond
c) α (1,6) glycosidic bond
d) β (1,4) glycosidic bond

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
d)

7) To form pyranose, the hydroxyl group from which position of an aldohexose attacks the carbonyl carbon? *1 point*

a) C-2
b) C-6
c) C-4
d) C-5

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
d)

8) Furanose sugars are comprised of *1 point*

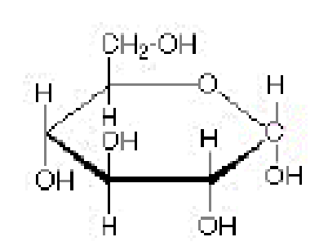
a) 4-member rings
b) 5-member rings
c) 6-member rings
d) 7-member rings

○ a)
○ b)
○ c)
○ d)

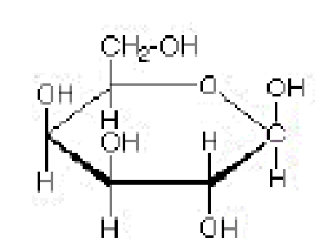
No, the answer is incorrect.
Score: 0

Accepted Answers:
b)

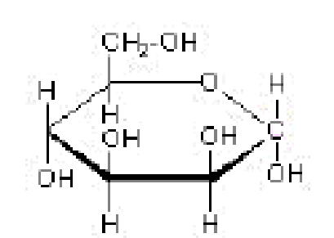
9) Which structure among the following is the correct representation of the D-Glucopyranose in a Haworth projection? *1 point*



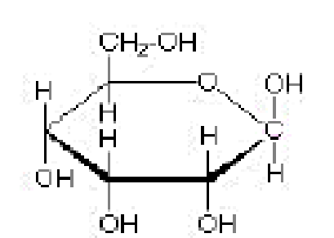
A



B



C



D

a) A
b) B
c) C
d) D

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
a)

10) The different stereoisomers formed due to cyclization at the aldehyde or ketone carbon are called *1 point*

a) Epimers
b) Anomers
c) Constitutional isomers
d) Enantiomers

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
b)

11) Which of following is an anomeric pair? *1 point*

a) α-D-glucose and α-D-mannose
b) α-D-glucose and β-L-glucose
c) α-D-glucose and β-D-glucose
d) α-D-glucose and α-L-glucose

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
c)

12) Starch and glycogen are both polymers of *1 point*

a) Fructose
b) Sucrose
c) α-D-glucose
d) β-D-glucose

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
c)

13) Which of the following statements is **TRUE** for the cyclic structure of a monosaccharide? *1 point*

a) They form acetals.
b) They form hemiacetals.
c) They form ethers.
d) They form esters.

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
b)

14) Carbohydrates that are optically active have the ability to rotate the plane of polarized light. Light rotated in the clockwise direction is generally represented by the symbol *1 point*

a) L
b) R
c) (+)
d) α

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
c)

15) The main component of the plant cell wall is *1 point*

a) Cellulose
b) Glycogen
c) Peptidoglycan
d) Lignin

○ a)
○ b)
○ c)
○ d)

No, the answer is incorrect.
Score: 0

Accepted Answers:
a)