

Unit 13 - Week 11: Molecular probes and Chemistry of carbohydrates

Course outline

How does an NPTEL online course work?

Week 0: Prerequisite

Week 1: Nucleic acids and proteins

Week 2: Nucleic acids and proteins

Week 3 : Synthesis of Nucleobases and Nucleotides

Week 4 : DNA Replication, Polymerases, DNA Sequencing and PCR

Week 5 : DNA Replication, Polymerases, DNA Sequencing and PCR

Week 6: DNA damage, mutation and cancer

Week 7: DNA to proteins: transcription, translation and genetic code

Week 8: Protein Sequencing and Solid Phase Peptide Synthesis (SPPS)

Week 9: Chemical Synthesis of Peptides and its therapeutic applications; Spectroscopic techniques for biomolecules.

Week 10: Modern techniques for biomolecules study, purification and characterization; Molecular probes

Week 11: Molecular probes and Chemistry of carbohydrates

Lecture 32: Molecular Probes: PNA and LNA - II

Lecture 33: Carbohydrate chemistry-I: Introduction and Synthesis

Quiz : Assignment 11

Lecture notes: Week 11

Weekly feedback form for week 11

Week 12: Chemistry of carbohydrates and Recap

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Assignment 11

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

Due on 2020-04-15, 23:59 IST.

1) LNA has _____ and _____ sugar structure.

2 points

- loose, locked
 loose, open
 rigid, locked
 rigid, open

No, the answer is incorrect.
Score: 0

Accepted Answers:
rigid, locked

2) Which of the following statement is/are correct?

1 point

- In LNA 2'-O and 4'-C atoms of the ribose are joined through a methylene bridge
 LNA cannot be inserted into RNA
 LNA are very flexible
 None of the above

No, the answer is incorrect.
Score: 0

Accepted Answers:
In LNA 2'-O and 4'-C atoms of the ribose are joined through a methylene bridge

3) Which of the following glycosidic linkage is found in maltose?

2 points

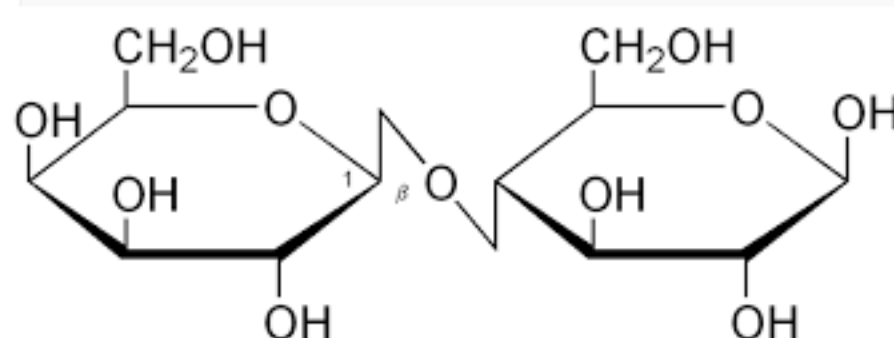
- Glucose (β 1 - 4) Glucose
 Galactose (β 1 - 4) Glucose
 Glucose (α 1 - 4) Glucose
 Glucose (α -1 - 2 β) Fructose

No, the answer is incorrect.
Score: 0

Accepted Answers:
Glucose (α 1 - 4) Glucose

4) what is the hydrolysis product of :

2 points



- Glucose and sucrose
 glucose and galactose
 galactose and fructose
 galactose and sucrose

No, the answer is incorrect.
Score: 0

Accepted Answers:
glucose and galactose

5) Which of the following statemnet is/are correct?

2 points

- Starch is made up of amylose and amylopectin
 The Kiliani reaction is a carbon shortening method.
 The Koenigs-Knorr reaction is the substitution reaction of a glycosyl halide to form glycoside
 Acetic anhydride is not used to protect free hydroxyl group
 monosaccharide cannot be further hydrolyzed

No, the answer is incorrect.
Score: 0

Accepted Answers:
Starch is made up of amylose and amylopectin
The Koenigs-Knorr reaction is the substitution reaction of a glycosyl halide to form glycoside
monosaccharide cannot be further hydrolyzed

6) Which of the following is/are not a disaccharide?

1 point

- Cane sugar
 Raffinose
 Lactose
 Maltose

No, the answer is incorrect.
Score: 0

Accepted Answers:
Raffinose