

SHRI RAMSWAROOP MEMORIAL UNIVERSITY

Problem Set-II

Session	2018-2019 (Odd Sem.)	Semester	III
Course	B. Tech.	Subject code	BBT3009
Branch	BT	Subject Name	Biochemistry
Group	31,32	Name of Faculty member	Prof. Sanjiv Kumar Maheshwari
Unit	II	Topic covered	Carbohydrates: Definition, classification, structure and functions of each class of carbohydrate,

Note: All questions are compulsory.

Section-A Very Short Answers type questions.

(10×1=10)

1. Define Carbohydrates.
2. Enlist three classes of Carbohydrate.
3. What are monosaccharides?
4. Write the structure of D-Glycerldehyde.
5. Why most of the monosaccharides are reducing sugars?
6. Write ring structure of D-Glucose.
7. What do you mean by Optical isomerism.
8. Enlist three isomers of D-Glucose.
9. Write names of one plant and one animal polysaccharides.
10. Write in brief about Optical isomerism.

Section-B Short Answer type questions.

(5×4=20)

1. Differentiate between aldose and ketose with examples.
2. What are sucrose and lactose. Enlist the difference between them,
3. What do you mean by ring structure of Carbohydrates.
4. Is lactose a reducing sugar? Draw the structure of lactose and circle the anomeric carbon in the ring structure.

Section-C Long Answer type questions.

(2×10=20)

1. Write a detailed note on classification of Carbohydrates on the basis of number of carbon atoms and hydrolysis. Write the finer details on the structure of plant and animal polysaccharide (storage).
2. What are structural polysaccharide? Write detailed note on cellulose and peptidoglycan.

Text Book / Reference Book:

1. Lubert Stryer Biochemistry (2002), WH Freeman New York
2. Lehninger AL Biochemistry (1989), CBS Publication, New Delhi

(Signature of Faculty with date)

Sanjiv
22/9/18

(Signature of Director with date)

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22/9/18