

PARUL UNIVERSITY
PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION, August 2018
M. Sc. Semester I
Subject: Microbiology

Paper Code: 11203104 Title of the paper: Biochemistry of Macromolecules

Date: 06/09/2019

Time: 12:30-2:00

Maximum Marks: 40

Instructions:

- 1. All questions are compulsory and options are given in first and second question only.**
- 2. Numbers to the right of question indicate the marks of respective question.**

- Q. 1** Attempt any one question of the following. **(08)**
 (i) Discuss the classification of protein.
 (ii) Discuss classification of carbohydrates.
- Q. 2** Attempt any three questions of the following. **(12)**
 (i) Discuss Denaturation of Protein .
 (ii) Classify the protein on the basis of their structure.
 (iii) Write a short note on Lactin.
 (iv) Describe the structure of amino acid.
 (v) Discuss any method of Protein purification.
- Q. 3** Do as directed. Attempt all five questions. **(05)**
 (i) Write down the full form of GAG.
 (ii) Define essential Amino Acid.
 (iii) Name a intracellular GAG
 (iv) What is glycoprotein?
 (v) State any two application of protein purification.
- Q. 4** Write correct option in your answer sheet for following 15 multiple **(15)**
 choice questions.

MCQ 1	Example of essential amino acid			
	(A)	Arginine	(B)	Histidine
	(C)	None of the above	(D)	Both of the above
MCQ 2	The major functions of carbohydrates include			
	(A)	Structural framework	(B)	storage
	(C)	Both a and b	(D)	None of these
MCQ 3	The general formula of carbohydrates			
	(A)	(CH ₂ O) _n	(B)	(C ₄ H ₂ O) _n
	(C)	(C ₆ H ₂ O) _n	(D)	(C ₂ H ₂ O) _n COOH
MCQ 4	Carbohydrates are			
	(A)	Polyhydroxy aldehydes and phenols	(B)	Polyhydroxy aldehydes and ketones
	(C)	Polyhydroxy ketones and phenols	(D)	Polyhydroxy phenols and alcohols
MCQ 5	Example of Aromatic Amino Acid is			
	(A)	Phenyl alanine	(B)	tyrosine

	(C)	Both of the above	(D)	None of the above
MCQ 6	Example of Imino Acid is			
	(A)	Proline	(B)	Valine
	(C)	Isoleucine	(D)	Leucine,
MCQ 7	Glucose is stored in plant in the form of			
	(A)	starch	(B)	glycogen
	(C)	cellulose	(D)	sucrose
MCQ 8	Purely Ketogenic amino acids:			
	(A)	Leucine	(B)	Lysine
	(C)	Only A	(D)	Both A and B
MCQ 9	Smallest carbohydrates are trioses. Which of the following is a triose?			
	(A)	glucose	(B)	ribulose
	(C)	ribose	(D)	glyceraldehyde
MCQ 10	Which of the following is a reducing sugar			
	(A)	glucose	(B)	dihydroxyacetone
	(C)	erythulose	(D)	None of these
MCQ 11	In what category of organic molecules are sugars placed?			
	(A)	Protein	(B)	Lipid
	(C)	Hormones	(D)	carbohydrates
MCQ 12	What are long chains of sugars called			
	(A)	Monosaccharides	(B)	Disaccharides
	(C)	Polysaccharides	(D)	proteins
MCQ 13	Ketone group containing Carbohydrate			
	(A)	fructose	(B)	ribulose
	(C)	dihydroxy acetone.	(D)	All of the above
MCQ 14	Purely ketogenic Amino Acid			
	(A)	lucine	(B)	lactose
	(C)	RNA	(D)	protein
MCQ 15	Muscle cells store energy in the form of _____.			
	(A)	starch	(B)	glycogen
	(C)	cellulose	(D)	steroids

-- All The Best--