



BRAINWARE UNIVERSITY

Term End Examination 2022 Programme – B.Optometry-2022 Course Name – General Biochemistry Course Code - BOPTOC103 (Semester I)

Full Marks: 60
Time: 2:30 Hours
[The figure in the margin indicates full marks. Candidates are required to give their answers in their

own words as far as practicable.]

a) Streptomycin

c) Penicillin

Group-A

(Multiple Choice Type Question) 1 x 15=15 1. Choose the correct alternative from the following: (i) Which of the following is the simplest form of carbohydrates? a) Carboxyl groups b) Aldehyde and Ketone groups c) Alcohol and Carboxyl groups d) Hydroxyl groups and Hydrogen groups (ii) Which of the following are major sites for glycogen storage? a) Adipose tissue b) Bones c) Muscle and liver d) Kidney and liver (iii) Which of the following glucose transporter (GLUT) is important in fructose transport in the intestine? a) GLUT1 b) GLUT3 c) GLUT5 d) GLUT7 (iv) Which of the following is not a substrate for gluconeogenesis? a) Lactate b) Alanine d) Acetyl CoA c) Glycerol (v) Which of the following enzymes are not involved in galactose metabolism? a) Galactokinase b) Glucokinase c) Galactose-1-Phosphate Uridyltransferase d) UDP-Galactose 4- epimerase (vi) Cobalt containing vitamin is a) Vitamin B2 b) Vitamin B12 c) Vitamin B6 d) Vitamin C (vii) Name the vitamin which functions as hormone as well as visual pigment? a) Thiamine b) Riboflavin c) Retinol d) Folic acid (viii) Excessive intake of calcium in our diet results in a) Stroke b) Diarrhoea c) Constipation d) Kidney stones (ix) Name a glycosidic antibiotic

b) Azithromycin

d) Glucovanillin

Page 1 of 2

(x)) Iron in the mucosal cells binds with the protein			
	a) Transferrin	b) Ferritin		
	c) Ceruloplasmin	d) Hemosiderin		
(xi)	Scurvy is due to the deficiency of			
	a) Vitamin A	b) Vitamin B		
	c) Vitamin D	d) Vitamin C		
(xii	Which of the following is necessary for the clo	•		
•	enzymes and control of fluids through cell membranes?			
	a) Calcium	b) Magnesium		
	c) Copper	d) Cobalt		
(xiii) Manganese is a key component of all of the fo	•		
•	a) arginase	b) pyruvate carboxylase		
	c) ceruloplasmin	d) Mn-superoxide dismutase		
(xiv	(xiv) Which of the following vitamin is essential for the absorption of calcium from the			
•	intestinal tract?	·		
	a) Vitamin D	b) Vitamin E		
	c) Vitamin B12	d) Vitamin B6		
(xv	(xv) In polysaccharide, monosaccharide are joined by:			
	a) Peptide bond	b) Glucose bond		
	c) Glycosidic bond	d) Covalent bond		
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Group-B				
(Short Answer Type Questions)			3 x 5=15	
			(3)	
	2. Write a short note on essential fatty acids with examples			
3. Describe Hypervitaminosis with clinical manifestations			(3)	
4. Write a short note on lodine number			(3)	
5. Explain the functions of DNA & RNA6. Explain zwitterion and isoelectric point of amino acid			(3)	
OR			(3)	
F	xplain D and L isomerism of glucose		(3)	
_	Apidin B dild E isomensin or glacose		(3)	
	Grou	up-C		
	(Long Answer T	ype Questions)	5 x 6=30	
7.	Define urea cycle? What is the most common metabolic disease associated with it? (5)			
8.	Explain the structure of collagen and its clinical significance		(5)	
9.	Mention the role of Vit A in visual cycle		(5)	
10.	D. Write short notes on Ninhydrin Reaction & Benedict's test		(5)	
11.	1. Write the fluid mosaic model of plasma membrane			
12.	12. Explain the structure and function of Phosphatidylinositol, Sphingolipid			
	OR (E)			
Classify amino acid Based on R-Group with at least one example (5)			(5)	
