



BRAINWARE UNIVERSITY

Term End Examination 2023-2024 Programme – B.Pharm-2021/B.Pharm-2022/B.Pharm-2023 Course Name – Biochemistry/Biochemistry - Theory Course Code - BP203T (Semester II)

Full Marks: 75 Time: 3:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 20=20

- Choose the correct alternative from the following :
- (i) Select the proper statement: albuminuria is described as__.
 - a) Urine associated with globulin
- b) Albumin associated with urine
- c) albumin associated with haeme
- d) albumin associated with alanine
- (ii) Which condition has been related with ketoacidosis?
 - a) Diabetes insipidus

b) Diabetes mellitus

c) Metabolic disorder

- d) Glycolysis
- (iii) What is the name of biosynthesis of triacylglycerol?
 - a) Lipolysis

b) Gycerolosis

c) lipogenesis

- d) Alkylosis
- (iv) Identify the lipid which is not harmful for health.
 - a) LDL

b) VLDL

c) HDL

- d) Cholesterol
- (v) Select the correct example of saturated fatty acid.
 - a) palmitic acid

b) oleic acid

c) linoleic acid

- d) erucic acid
- (vi) Identify the lipids which can also be referred as neutral lipids.
 - a) Triacylglycerol

b) Steroid

c) Phospholipids

- d) Wax
- (vii) Identify the biomolecule that is digested by amylase enzyme.
 - a) Protein

b) Carbohydrate

c) Fat

- d) Lipid
- (viii) Tell the chemical name of Vitamin B1.

	a) Riboflavin c) Niacin Identify the correct composition of	C) thiamin) none	
	a) a sugar + a phosphate c) a base + a phosphate Identify the normal blood sugar lev	b) a base + a sugar) a base + a sugar + phosphate	
9	a) 80-120mg/cl c) 100-140mg/dl Select the chemical class of sodium	d) 70-100mg/dl) 140-160mg/dl	
(a) Detergent c) Emulsion Identify the following prosthetic gro	d) Surfactant) Baking soda sent in NADH dehydrogenase.	
(a) NADH c) NADPH Select the factor which does not afi	d) FAD) NADPH an amino acid.	
C	 a) The loss of charge in the α-carbox amino groups b) Other environmental factors c) Select the correct answer: for apoe 	ď	The interactions with other peptide R Molecular weight	groups
a	 It is a protein portion of an enzyme It is a complete, biologically active conjugated enzyme Choose the correct average molecular 	ne. bj	It is a prosthetic group.	
a) 128 Da) 110 Da Predict the correct answer that is no	b) d)	118 Da 120 Da	
a) Lipoproteins) Complete proteins Choose the correct co-factor respor	b) d)	Glycoproteins Metalloproteins	
a c) CDP) GDP Choose the correct enzyme that par	b) d)	ADP NADP+	
a c) He <mark>licase</mark>) Both a) and b) Identify the structure of hexokinase	b) d)	Topoisomerase None	
c) U-shaped) E-shaped Choose the precursor of glycine.		T-shaped G-shaped	
) Proline) Serine		Glutamine Glutamate	
	(Sho	Group-B ort Answer Type	Questions) 5	5 x 7=35

(5)

2. Distinguish between HDL and LDL.

3.	Classify the lipids with example	(5)	
	4. Define amino acid and explain why it is called as zwitterions.		
5.	5. Define essential and non-essential amino acid with examples.		
6. What are the risk factors associated with developing Type 2 Diabetes Mellitus, and how can individuals mitigate these risks?			
7.	Illustrate Michaelis Menten equation and draw the graphical diagram.	(5)	
	OR		
	Write a short note on Gout disease.	(5)	
8.	Illustrate the synthesis of serotonin in a schematic way.	(5)	
	OR		
	Illustrate the replication process of DNA.	(5)	
	Group-C		
	(Long Answer Type Questions)	10 x 2=20	
9.	Stating the definition of enzyme describe their mechanism of action with proper diagram and list out the factors affecting enzyme.	i (10)	
10	Explain briefly the formation and utilization of ketone bodies in biological system. OR	(10)	
	Explain the inhibitors name and functions of transcription process.	(10)	
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