4.8





BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – B.Sc.(OTT)-2022
Course Name – Biochemistry
Course Code - BOTTC202
(Semester II)

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.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

- 1. Choose the correct alternative from the following:
- (i) Articulate the appropriate enzyme with acute pancreatitis

a) AST

b) Amylase

c) GGT

d) Lipase

- (ii) Choose the basic unit of protein
 - a) Peptide

b) Amino acid

c) Alpha-protein

- d) Peptone
- (iii) Choose the enzyme that acts as a sensitive marker for alcoholic liver disease
 - a) Alanine transaminase

b) aspartate transaminase

c) gamma glutamyl transferase

- d) Alkaline phosphatase
- (iv) Identify the most important natural antioxidant
 - a) Vitamin D

b) Vitamin E

c) Vitamin B12

- d) Vitamin K
- (v) The vitamin employed for the formation of hydroxyproline (in collagen) is

a) Vitamin C

b) Vitamin A

c) Vitamin D

- d) Vitamin E
- (vi) Trace the loaction from where carboxypeptidase is secreted

a) pancreas

b) stomach

c) salivary glands

d) intestine

(vii) Identify the enzyme used in ELISA

a) chymotrypsin

b) horse radish peroxidase

c) tyrosinase

d) lactate dehydrogenase

(viii)	Select the radioactive isotope is used in RIA	125-4: 125		
	a) sulphur 35	b) iodine 125 d) nitrogen 14		
(ix)	c) phosphorus 32 ix) The foldings associated with inner membrane of mitochondria are			
(174)	a) Cristae	b) Cisternae		
	c) Lamellae	d) Vesicles		
(x)	x) Predict the nature of mixture of amino acids at iso electric pH			
	a) Zwitter ions	b) non polar molecules		
	c) hydrophilic	d) positive and monovalent		
(xi)	ATP synthease can be identified in			
	a) outer mitochindrial membrane	b) inner mitochindrial membraned) mitochindral matrix		
(xii)	c) inter membrane space Trace the derivative of tryptophan	d) mitochindra matrix		
(////	a) melatonin	b) thyroxine		
	c) methionine	d) glutamine		
(xiii)	(xiii) Give an example of Omega -3 and Omega -6 fatty acid			
	a) Alpha- Linolenic acid and Linoleic Acid	b) palmitic acid and Oleic acid respective	ly	
	respectively c) Stearic acid and butyric acid respectively	d) Caproric acid and Stearic acid respecti	vely	
(xiv)	Genetic information of nuclear DNA is transferred	•		
	a) rRNA	b) mRNA		
, ,	c) tRNA	d) Polysomes		
(xv)	(xv) Differentiate the component of feces responsible for its brown pigmentation			
	a) Stecobilirubin c) Stercobilinogen	b) Stercobilin d) Stecobilin		
	c/ Stercobiimogen	d) Stecobiiii		
	Group	o-B		
(Short Answer Type Questions) 3			3 x 5=15	
2. Di	scuss about the function of folic acid.		(3)	
3. Ex	plain anion gap.		(3)	
	4. Explain angiogenesis for cancer development.			
	Differentiate between fat soluable and water soluable vitaminA lab technician added DNA sample in ELISA plate. He did not get any absorbance value. Criticize			
the result				
OR				
	researcher want to perform compitative ELISA test e did not get any OD.Analyze the result	.He added sample to the microtiter plate	(3)	
Group-C				
(Long Answer Type Questions) 5 x				
			× 32 II	
	iscuss the function of RNA		(5)	
	Explain the source and beneficial effect of Leucine, Tryptophan in human.			
	A researcher forgot to add secondary antibody when he is performing sandwich ELISA .He did not get any OD. Criticize the result			
10. II	LO. Illustrate the Watson -Crick DNA double helix model with diagram			
11. S	LO. Illustrate the Watson -Crick DNA double helix model with diagram L1. Summarize the diagrammatic representation of TCA cycle			

12. A solution of tryptophan(trp) has an absorbance at 280nm of 0.54 in a 0.5cm length cuvette. Absorbance coefficient of trp is 6.4X10^3 L/mol/cm. Calculate the concentration of solution	(5)
OR Calculate the molar absorptivity of a 1X10^-4M solution. Absorbance =0.20, path length is 2.5cm	(5)
