



## **BRAINWARE UNIVERSITY**

Term End Examination 2023-2024
Programme – B.Sc.(FND)-Hons-2023
Course Name – Food Science
Course Code - BFD10101
( Semester I )

	Time: 2:30 Hours
Full Marks: 60	
The figure in the margin indicates full marks. Ca	andidates are required to give their answers in their
own words as	far as practicable.]

	Group	D-A			
1.	(Multiple Choice To	ype Question) 1 x 15=15			
1.	Choose the correct alternative years	(Annual or Indian in the			
(i)	Which monosaccharide is a component of lactor	se (milk sugar) ?			
(ii)	<ul><li>a) Glucose</li><li>c) Galactose</li><li>Which of the following conditions can result fro</li></ul>	b) Fructose d) Sucrose			
	a) Rickets c) Pellagra Which carbohydrate is commonly found in milk	b) Scurvy d) Night blindness			
	a) Fructose     c) Lactose     Determine the reagent used to create Oxime from	b) Maltose d) Sucrose			
	a) Chromic Acid b) Hydroxyl Amine c) Sulphuric Acid d) Tollen's reagent Name the vitamin can help enhance the absorption of non-heme iron from plant-based foods.				
(vi)	a) Vitamin A c) Vitamin D Select the statement for Amino Acid Score of a				
	a) A measure of the protein's taste and flavor	<ul> <li>b) A measure of the protein's digestibility in the body</li> </ul>			
,	c) A measure of the protein's overall nutritional quality based on its essential amino acid profile	d) A measure of the protein's caloric content			
(vii)	Select the role that antioxidants play in preven				
	a) They neutralize free radicals and inhibit	b) They promote the breakdown of fats and			

oxidation

	c) They stimulate the growth	of	They enhance enzymatic activity	
188 18 18 18 18 18 18 18 18 18 18 18 18	microorganisms		llating water balance by adjusting the	
Sili Sili	) Select the organ that plays a	central role in regu	liating water	
1.7	volume and concentration of	urine.		
6	a) Liver		b) Kidneys d) Stomach	
			disastive system .	
(ix)	Select the main function of d	ietary fiber in the c	b) To aid in protein digestion	
	<ul> <li>a) To provide energy</li> </ul>		d) To promote regular bowel movemen	ts
	c) To support the absorption	of vitamins	a) to promote regard	
(x)	What is the condition caused	by severe Vitamin	D deficiency, characterized by soft and	
	weakened bonesr			
	a) Rickets		b) Scurvy d) Xeropthalmia	
	c) Beriberi	in Aba akin unan a	a) Xeroptilanine	
(xi)	Which vitamin is synthesized	in the skin upon e	xposure to suring the	
	a) Vitamin C		b) Vitamin D	
	c) Vitamin B12	-6\/!\! D2	d) Vitamin A	
(xii)	Select the active coenzyme for			
	a) Riboflavin triphosphate (FT		b) Riboflavin tetraphosphate (FTPP)	
	c) Riboflavin mononucleotide	(FMN)	d) Riboflavin monophosphate	
(xiii)	Which condition is associated	with a severe def	iciency of vitamin D in children ?	
	a) Scurvy		b) Beriberi	
	c) Rickets		d) Anaemia	
(xiv)	Select the active coenzyme for	orm of Vitamin B1.		
	a) Thiamine disulfide (TDS)	į.	b) Thiamine hydrochloride (THC)	
	c) Thiamine pyrophosphate (	TPP)	d) Thiamine monophosphate (TMP)	
(xv)	HDL is often referred to as: ?			
	a) "Bad" Cholesterol		b) "Good" Cholesterol	
	c) Triglycerides		d) VLDL	
			, (F1 *	
		Grou	•	3 x 5=15
		(Short Answer Ty	ype Questions)	3 X 3-13
1				(2)
	efine Saponification Value .			(3)
	iscuss "Hyponatremia"			(3) (3)
4. E	xplain "Zwitter-ion".			(3)
5. W	rite down the WHO classificat	ion of Xeropthalm	ia.	(3)
			what is the basic composition of dietary	(3)
fil	per?			
		OI		
111	ustrate why is drinking water o	essential for huma	n health? What percentage of the huma	n (3)
			s the body regulate water balance to	
pr	event dehydration or overhyd	ration?		
		Grou		
		(Long Answer Ty	/pe Questions)	5 x 6=30
	llustrate the "Osazone reactio	• 175.55	2.	(5)
8. Describe the bio-chemical role of Vitamin C.			(5)	
<ol> <li>Explain the physiological relationship between calcium and vitamin D.</li> <li>Illustrate the bio-chemical role of thiamine.</li> </ol>			(5)	
				(5)
11.	How is iron absorbed in our bo	ouyr		(5)

_	a new of dietary fiber	(5)
1	Distinguish the types and functions of dietary fiber.     OR     Calsium and parathermone.	(5)
	Justify the interrelationship between Calcium and parathormone.	
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