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Daffodil International University
Department of Nutrition and Food Engineering
Faculty of Health and Life Sciences
B.Sc. in Nutrition and Food Engineering
Final Examination-Summer 2026

Course Code: 0511-1105 **Course Title:** Basic Human Nutrition
Level and Term: L-1, T-1 **Section:** 262 All **Course Teacher Initials:** AS,SIS,MS,TA,FKS,MRH

Time: 2 Hours **Total Marks:** 40

"Maintaining the order of the questions is highly encouraged"

				Marks
1	(a)	Define dietary fiber. Explain any three health benefits of a high-fiber diet.	[CLO3,PLO1,C2]	3
	(b)	Briefly describe the health benefits of dietary fiber.	[CLO3,PLO1,C1]	3
	(c)	Why are dietary fibers considered non-digestible by humans?	[CLO3,PLO1,C1]	2
2	(a)	Briefly explain the classification of proteins with examples considering their nutritional aspects.	[CLO3,PLO1,C4]	4
	(b)	A 22-year-old man weighs 65 Kg and consumes 40g of protein per day. He presents with muscle weakness and delayed wound healing. Apply your knowledge to determine whether his daily protein intake is adequate based on the DRI. Justify your answer and explain the role of adequate protein intake in wound healing.	[CLO3,PLO1,C3]	4
3	(a)	Illustrate and explain the conversion of cis-fatty acids into saturated and trans-fatty acids.	[CLO3,PLO1,C4]	3
	(b)	Evaluate the importance of HDL in maintaining cardiovascular health.	[CLO3,PLO1,C3]	3
	(c)	Differentiate between saturated and unsaturated fatty acids.	[CLO3,PLO1,C3]	2
4	(a)	Describe the mechanism of vitamin A in the visual cycle.	[CLO4,PL01,C2]	4
	(b)	Discuss the physiological functions of Iodine and Iron.	[CLO4,PLO1,C2]	4
5	(a)	Explain the movement of water across the cell membrane in isotonic, hypotonic and hypertonic solutions.	[CLO4,PL01,C2]	4
	(b)	Discuss the physiological functions of water in the human body.	[CLO4,PLO1,C5]	4

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