



Daffodil International University
 Department of Nutrition and Food Engineering
 Faculty of Health and Life Sciences
 BSc. in Nutrition and Food Engineering
 Midterm Examination Fall 2025

Course Code: 0511-1105

Level and Term: L-1, T-1

Time: 1.30 hours

Section: 253 All

Course Title: Basic Human Nutrition

Course Teacher Initials: FA, MMS, TA

Total Marks: 25

Splitting any answer is strictly prohibited

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|---|---|-------|
| 1 | (a) Classify foods based on their function and provide one example for each category. [CLO1,PLO1,C3] | 2 |
| | (b) Using the WHO conceptual framework of <u>malnutrition</u> , draw a framework for good nutrition. [CLO1,PLO1,C2] | 3 |
| 2 | (a) Explain the steps involved in calculating the Glycemic Index (GI) of a food. [CLO2,PLO1,C4] | 2 |
| | (b) Food A is ripe banana providing 45 g of available carbohydrates with a Glycemic Index (GI) of 50, while Food B is fresh watermelon providing only 10 g of available carbohydrates but with a higher GI of 72. Calculate the <u>GI</u> for both foods and determine which food would be a better choice for a diabetic individual. Justify your answer based on your calculations. $GI = \frac{50 \times 10}{15}$ [CLO2,PLO1,C3] | 3 |
| 3 | (a) Differentiate between soluble, insoluble and functional fiber. [CLO1,PLO1,C2] | 2 |
| | (b) Use a diagram to explain the role of dietary fiber in reducing the risk of cardiovascular diseases. [CLO1,PLO1,C4] | 3 |
| 4 | (a) Define lactose intolerance and mention its primary cause. [CLO1,PLO1,C1] | 2 |
| | (b) Classify carbohydrates based on releasing <u>characteristics</u> and provide one example of a food source for each category. [CLO1,PLO1,C3] | 3 |
| 5 | (a) State the main functions of the skeletal, cardiac and smooth tissues. [CLO1,PLO2,C1] | 2 |
| | (b) Identify the cell organelle that acts as the site for <u>most cellular metabolic activities</u> and write four of its functions. [CLO1,PLO2,C3] | 3 |