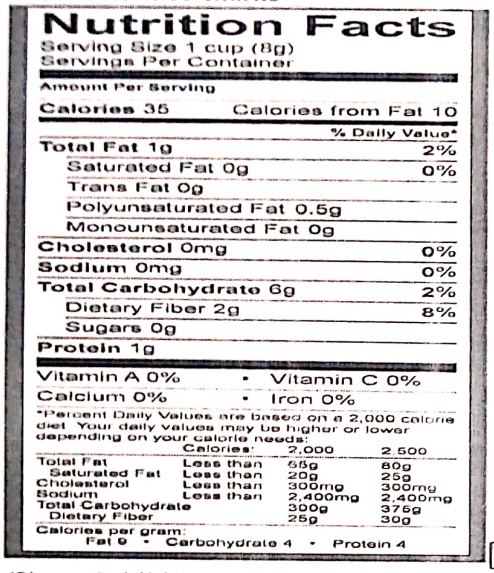
ELIZADE UNIVERSITY, ILARA-MOKIN
FACULTY OF BASIC AND APPLIED SCIENCES,
DEPARTMENT OF PHYSICAL AND CHEMICAL SCIENCES
BIOCHEMISTRY OPTION
FIRST SEMESTER EXAMINATION

COURSE: BCH 301 (NUTRITIONAL BIOCHEMISTRY).
TIME ALLOWED: 150 MINS
Instruction: Answer any four [4] questions.

SECTION A

(1) Study and give the description of nutrition facts in the images designated as [A] and [B]. Which of it will you recommend for an aged, diabetic patient with heart disease and give reasons for your choice……..15 marks

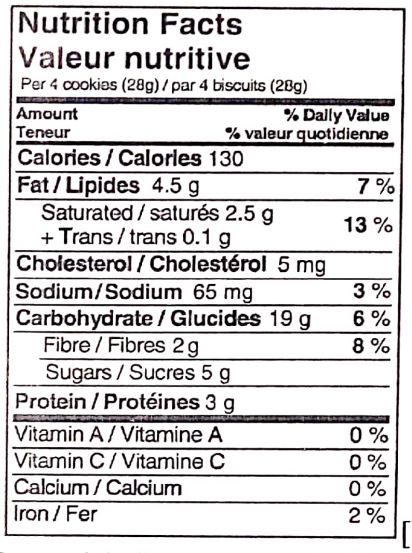


Nutrition Facts
Serving Size 1 cup (8g)
Servings Per Container
Amount Per Serving
Calories 35 Calories from Fat 10
% Daily Value*
Total Fat 1g 2%
Saturated Fat 0g 0%
Trans Fat 0g
Polyunsaturated Fat 0.5g
Monounsaturated Fat 0g
Cholesterol 0mg 0%
Sodium 0mg 0%
Total Carbohydrate 6g 2%
Dietary Fiber 2g 8%
Sugars 0g
Protein 1g
Vitamin A 0% • Vitamin C 0%
Calcium 0% • Iron 0%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

[A]



Nutrition Facts
Valeur nutritive
Per 4 cookies (28g) / par 4 biscuits (28g)

Amount / Teneur	% Daily Value / % valeur quotidienne
Calories / Calories 130	
Fat / Lipides 4.5 g	7 %
Saturated / saturés 2.5 g + Trans / trans 0.1 g	13 %
Cholesterol / Cholestérol 5 mg	
Sodium / Sodium 65 mg	3 %
Carbohydrate / Glucides 19 g	6 %
Fibre / Fibres 2 g	8 %
Sugars / Sucres 5 g	
Protein / Protéines 3 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	0 %
Calcium / Calcium	0 %
Iron / Fer	2 %

[B]

(2) Inhibition of the action of enzymes like [i] acetylcholinesterase and [ii] angiotensin-1 converting enzyme is adjudged a useful approach in the management of some degenerative diseases. Identify the disease linked with each of the enzymes above and Describe how a named functional food could be useful in their management……15 marks

(3a)Describe any five (5) methods of preserving food……5marks
(3b)Briefly comment on the occurrence of the listed pathogens in food;
(i)Salmonella……5 marks
(ii)Tapeworm……..5 marks

SECTION B (*N.B. Each question carries 15 marks in this Section*)

(4a) Explain the following terms
- (i) Cofactor
- (ii) Coenzymes
- (iii) Prosthetic group

(4b) Describe in biochemical terms the mechanism involved in night blindness

(5) Write an essay on;
(a) Protein in Human Nutrition
(b) Evaluation of Nutritional status

(6) Write short notes on any four of the following
- (i) Essentiality of amino acids
- (ii) Methods of assessing protein quality
- (iii) Energy metabolism
- (iv) Protein of physiological importance
- (v) Properties of fat-soluble vitamin
- (vi) Kwashiorkor
- (vii) Dietary fiber