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School code

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School name

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Given name/s

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Family name

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Attach your
barcode ID label here

Book

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of

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books used

External assessment

Question and response book

Food & Nutrition

Time allowed

- Perusal time — 10 minutes
- Working time — 120 minutes

General instructions

- Answer all questions in this question and response book.
- Write using black or blue pen.
- Respond in paragraphs consisting of full sentences.
- Planning paper will not be marked.

Section 1 (18 marks)

- 5 short response questions

Section 2 (42 marks)

- 1 extended response question





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Section 1

Instructions

- If you need more space for a response, use the additional pages at the back of this book.
 - On the additional pages, write the question number you are responding to.
 - Cancel any incorrect response by ruling a single diagonal line through your work.
 - Write the page number of your alternative/additional response, i.e. See page ...
 - If you do not do this, your original response will be marked.
 - This section has five questions and is worth 18 marks.
-

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QUESTION 1 (1 mark)

Explain the term *nutrition consumer market*.

QUESTION 2 (4 marks)

A fitness-focused consumer is training to participate in a 25-km run event. Identify and justify two dietary requirements this person will have during the training period.

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QUESTION 3 (4 marks)

The formulation for a raspberry pudding is shown.

Food components

85 mL coconut milk
85 mL almond milk
40 g chia seeds
30 g frozen raspberries
20 g shredded coconut
5 g honey

Procedure

In a small jar, stir together coconut milk, almond milk and chia seeds.
Top with frozen berries, shredded coconut and a drizzle of honey.
Seal jar and refrigerate for 2 hours or overnight.

Nutrition information panel

Servings per package: 1		
Serving size: 250 g		
	Average quantity per serving	Average quantity per 100 g
Energy	1580 kJ	632 kJ
Protein	7.8 g	3.1 g
Fat, total	38.0 g	15.2 g
– saturated	22.3 g	8.9 g
Carbohydrate	17.8 g	7.1 g
– sugars	10.9 g	4.4 g
Sodium	24 mg	10 mg

Identify two ways the raspberry pudding could be reformulated to meet the needs of the elderly nutrition consumer market. Use the information provided to justify your reformulations.

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QUESTION 4 (4 marks)

The nutrition information panels for three cereals are shown.

Cereal 1

Servings per package: 11 Serving size: 30 g		
	Average quantity per serving	Average quantity per 100 g
Energy	483 kJ	1610 kJ
Protein	2.7 g	9.0 g
Fat, total	1.44 g	4.8 g
– saturated	0.39 g	1.3 g
Carbohydrate	21.45 g	71.5 g
– sugars	8.07 g	26.9 g
Dietary fibre	2.37 g	7.9 g
Sodium	33 mg	110 mg

Cereal 2

Servings per package: 10 Serving size: 40 g		
	Average quantity per serving	Average quantity per 100 g
Energy	594.8 kJ	1487 kJ
Protein	2.9 g	7.25 g
Fat, total	0.6 g	1.5 g
– saturated	0.2 g	0.5 g
Carbohydrate	28.1 g	70.25 g
– sugars	8.52 g	21.3 g
Dietary fibre	4.52 g	11.3 g
Sodium	80 mg	200 mg

Cereal 3

Servings per package: 11 Serving size: 45 g		
	Average quantity per serving	Average quantity per 100 g
Energy	886 kJ	1969 kJ
Protein	4.8 g	10.7 g
Fat, total	9.2 g	20.4 g
– saturated	1.7 g	3.8 g
Carbohydrate	25.7 g	57.1 g
– sugars	7.7 g	17.1 g
Dietary fibre	2.6 g	5.8 g
Sodium	5 mg	11 mg

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QUESTION 5 (5 marks)

The nutrition information panel and Nutrient Profiling Scoring Criterion (NPSC) for a new protein shake are presented to a fitness-focused consumer.

Nutrition information panel

Servings per package: 1		
Serving size: 55 g		
	Average quantity per serving	Average quantity per 100 g
Energy	856 kJ	1556 kJ
Protein	23.9 g	43.5 g
Fat, total	4.4 g	8 g
– saturated	2.1 g	3.8 g
Carbohydrate	13.1 g	23.8 g
– sugars	5.2 g	9.4 g
Dietary fibre	7.4 g	13.5 g
Sodium	4.4 mg	8 mg

Nutrient Profiling Scoring Criterion

Protein shake		
Category 1		
Baseline points:		
<i>Nutrient information</i>		<i>Amount entered</i>
		<i>Points earned</i>
Energy		1556
Saturated fatty acids		0.8
Sugars		9.4
Sodium		8
Total baseline points		6
<i>Modifying points:</i>		<i>Amount entered</i>
		<i>Points earned</i>
<i>fvar</i>	Non <i>fvar</i> ingredients	100%
	Non-concentrated <i>fvar</i> ingredients	0%
	Concentrated fruit and vegetable ingredients	0%
Protein		53.5
Dietary fibre		0
Total modifying points		5
Final score		1

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- a) The protein shake makes the following health claim: 'A protein shake for those who want strong physical performance'. Use the NPSC data to justify whether this health claim is warranted.

[2 marks]

- b) Justify why a fitness-focused nutrition consumer might use the protein shake after exercise.

[3 marks]

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Section 2

Instructions

- This section has one question and is worth 42 marks.
- Respond in 400 words or more.

QUESTION 6 (42 marks)

The Food Kit Company markets ready-to-prepare meal kits, which are packs of food components with instructions. These are suitable for quick and easy preparation at home. The company has identified that there is a limited available range of meals suitable for the nutrition consumer experiencing diabetes. To fill this gap in the market, the company has developed three prototypes in its test kitchen. The results of the testing are outlined in Stimulus 1 in the stimulus book.

Use the problem-solving process to determine which of the three prototype formulations is the most suitable option for the Food Kit Company to add to its range.

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References

Chelsea, 2014, 'Coconut Raspberry Chia Breakfast Pudding Cups', *Port and Fin*, 28 November, <https://portandfin.com/coconut-raspberry-chia-breakfast-pudding-cups>

Food Standards Australia and New Zealand 2019, *Nutrient Profiling Scoring Calculator*, www.foodstandards.gov.au/industry/labelling/pages/nutrientprofilingcalculator/default.aspx.



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