LUI ☐☐☐☐☐☐☐☐☐☐ School code ☐☐☐☐

School name ☐

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Attach your
barcode ID label here

Book ☐ of ☐ books used

External assessment 2024

Food & Nutrition

Time allowed

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

General instructions

- Answer all questions in this question and response book.
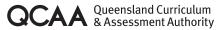- Write using black or blue pen.
- Planning paper will not be marked.

Section 1 (21 marks)

- 4 short response questions

Section 2 (33 marks)

- 1 extended response question

Queensland Government | QCAA Queensland Curriculum & Assessment Authority

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 four questions and is worth 21 marks.

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QUESTION 1 (5 marks)

a)   Identify three nutrients that are important during pregnancy. Explain your reasoning.   *[3 marks]*

_____

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The Nutrient Profiling Scoring Criterion (NPSC) calculation for porridge is shown.

Nutrient Profiling Scoring Criterion (NPSC) calculation		
Porridge		
Category 2		
Baseline points		
Nutrient information	Amount entered	Points earned
Energy	1600	4
Saturated fatty acid	1.8	1
Sugars	2.2	0
Sodium	9	0
Total baseline points		**5**
Modifying points	Amount entered	Points earned
fvnl — Non-*fvnl* ingredients	100%	0
fvnl — Non-concentrated *fvnl* ingredients	0%	
fvnl — Concentrated fruit and vegetable ingredients	0%	
Protein	12.8	5
Dietary fibre	13.2	5
Total modifying points		**10**
Final score		**−5**

b) Use data from the NPSC calculation to justify the suitability of the porridge for the pregnant nutrition consumer market.

[2 marks]

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QUESTION 2 (9 marks)

The formulation for apricot chicken is shown.

Apricot chicken	
Food components	**Procedure**
400 g chicken breasts, skin on 3 g garlic salt 3 g pepper 300 g apricot jam 40 mL honey 20 g butter 50 g onion, diced 6 g chicken stock powder	1. Melt 10 g of butter in a pan and fry the chicken, skin side down, until golden. Remove from pan. 2. Melt the remaining butter and sauté the onion. 3. Return chicken, skin side up, to pan. 4. Add combined apricot jam, honey, garlic salt and stock powder to the pan, along with 200 mL of water. Simmer for eight minutes. 5. Season with pepper.

A food company is reformulating the apricot chicken to improve its nutritional outcomes with minimal impact on sensory properties.

a) Identify three alternative food components and/or procedure steps to reformulate
the apricot chicken. *[3 marks]*

I: _____

II: _____

III:_____

b) Justify each alternative food component and/or procedure step identified in Question 2a) in relation to improving the nutritional outcomes for apricot chicken with minimal impact on sensory properties.

[6 marks]

Alternative food component / procedure step I

Nutritional outcome: _____

_____

Sensory property: _____

_____

_____

Alternative food component / procedure step II

Nutritional outcome: _____

_____

Sensory property: _____

_____

_____

Alternative food component / procedure step III

Nutritional outcome: _____

_____

Sensory property: _____

_____

_____

QUESTION 3 (4 marks)

The food components and nutrition information for blueberry probiotic yoghurt are shown.

Blueberry probiotic yoghurt	
Food components whole milk skim milk apple concentrate blueberry puree skim milk powder natural flavour live cultures	**Nutrition information** Servings per package: 5 Serving size: 175 g

Nutrition information	Average quantity per serving	Average quantity per 100 g
Energy	487 kJ	278 kJ
Protein	6.1 g	3.5 g
Fat, total – saturated	4.2 g 2.9 g	2.4 g 1.7 g
Carbohydrate – sugars	13.5 g 13 g	7.7 g 7.4 g
Dietary fibre	0 g	0 g
Sodium	83 mg	47 mg
Calcium	192 mg	110 mg

Identify two food components that could be added to improve the nutritional value of this product for the fitness-focused nutrition consumer market. Justify each additional food component.

_____

_____

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QUESTION 4 (3 marks)

The formulation for pork satay noodles is shown.

Formulation: Pork satay noodles	
Food components	**Nutrition information**

Food components

40 g smooth peanut butter

270 mL evaporated skim milk

3 drops coconut essence

10 mL peanut oil

400 g pork fillet, whole

20 mL sweet chilli sauce

20 mL soy sauce

10 mL fish sauce

10 mL lime juice

100 g rice noodles

75 g bok choy

125 g cabbage, shredded

180 g bean sprouts

Nutrition information

Servings per package: 4   Serving size: 380 g

	Average quantity per serving	Average quantity per 100 g
Energy	1580 kJ	416 kJ
Protein	44.2 g	11.6 g
Fat, total	12.0 g	3.2 g
– saturated	2.6 g	0.7 g
Carbohydrate	19.9 g	5.2 g
– sugars	12.9 g	3.4 g
Fibre	7.6 g	2 g
Sodium	494 mg	130 mg

Procedure

1. Heat oil in an oven-proof pan. Add pork. Fry until brown, then bake in the oven for 20–30 minutes. Rest the pork and cut into thick slices. Combine sauces, lime juice, peanut butter, coconut essence and evaporated milk. Cook until smooth.

2. Place noodles in a saucepan of boiling water for six minutes. Add bok choy and cabbage. Stand for two minutes. Drain.

3. Serve the noodles, bok choy and cabbage topped with sliced pork fillet and bean sprouts.

Provide three reasons this formulation is suitable for a consumer experiencing coronary heart disease. Support your response with data from the formulation.
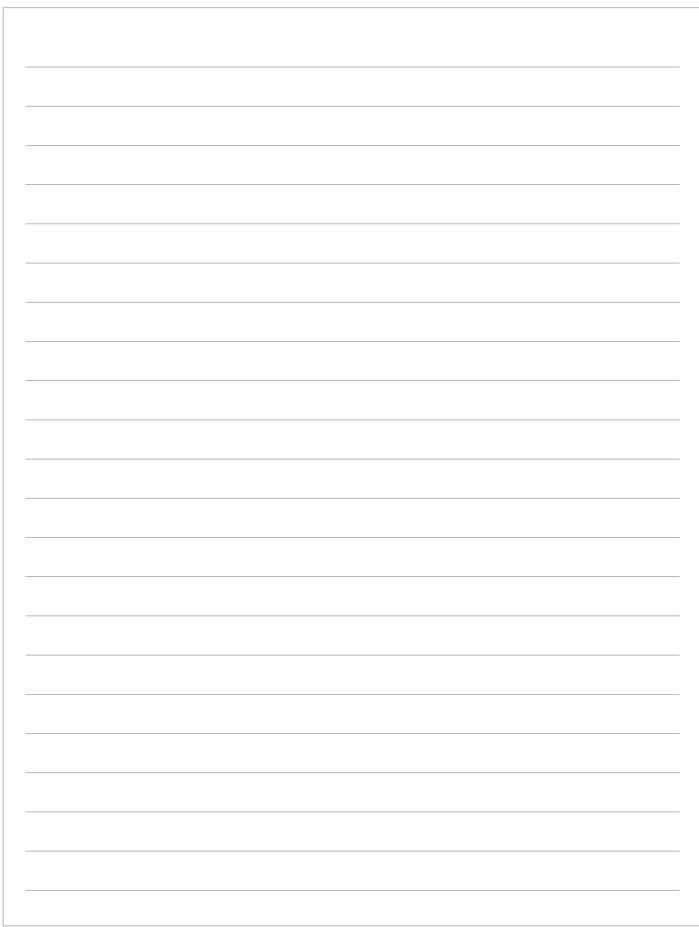
Section 2

Instructions

- Read Stimulus 1 in the stimulus book.
- Respond in paragraphs consisting of full sentences.
- Respond in 400 words or more.
- This section has one question and is worth 33 marks.

QUESTION 5 (33 marks)

A food company has developed and tested three prototypes for a nutrition consumer market (NCM). The prototypes and test results are outlined in the test kitchen report in the stimulus book. Use the problem-solving process and the test kitchen report to determine which prototype is most suitable for the NCM.

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ADDITIONAL PAGE FOR STUDENT RESPONSES

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ADDITIONAL PAGE FOR STUDENT RESPONSES

Write the question number you are responding to.

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References

Question 1

Food Standards Australia New Zealand (FSANZ), *Nutrient Profiling Scoring Calculator*, https://npsc.foodstandards.gov.au/.