

Food & Nutrition marking guide and response

External assessment 2022

Combination response (66 marks)

Assessment objectives

This assessment instrument is used to determine student achievement in the following objectives:

1. recognise and describe facts and principles related to the food system, food formulation and nutrition consumer markets
2. explain ideas and problems related to current and emerging nutrition consumer markets
3. analyse problems, information and data related to current and emerging nutrition consumer markets
4. determine solution requirements and criteria for nutrition consumer market problems
5. synthesise information and data for solutions related to nutrition consumer market problems
7. evaluate and refine ideas and solutions to make justified recommendations for enhancement.

Note: Unit objectives 6 and 8 are not assessed in this instrument.

Purpose

This document consists of a marking guide and a sample response.

The marking guide:

- provides a tool for calibrating external assessment markers to ensure reliability of results
- indicates the correlation, for each question, between mark allocation and qualities at each level of the mark range
- informs schools and students about how marks are matched to qualities in student responses.

The sample response:

- demonstrates the qualities of a high-level response
- has been annotated using the EAMG.

Mark allocation

Where a response does not meet any of the descriptors for a question or a criterion, a mark of '0' will be recorded.

Where no response to a question has been made, a mark of 'N' will be recorded.

Marking guide

Short response

Q	Sample response	The response:
1a)	A food formulation is a combination of food components in appropriate ratios, using structures according to a formula.	<ul style="list-style-type: none">• provides an accurate explanation [1 mark]
1b)	A formulation is reformulated to produce a different combination of food components, structures or processes for a particular need.	<ul style="list-style-type: none">• states that a reformulation is an alteration or revision to a formulation using<ul style="list-style-type: none">– a different combination of food components or mixture of ingredients [1 mark]– different structures, processes or method [1 mark]• states that the reformulation is undertaken for a particular need [1 mark]
2a)	The allergens are prawns, fish stock, peanuts and wheat flour.	<ul style="list-style-type: none">• identifies two relevant allergens [1 mark]• identifies another two relevant allergens [1 mark]
2b)	<p>Food manufacturer's responsibility: Label allergens in their food products (by law).</p> <p>Food consumer's responsibility: Accept responsibility for checking product labels to ensure they do not consume food components that can cause life-threatening allergic reactions.</p>	<ul style="list-style-type: none">• provides an accurate explanation of the food manufacturer's responsibility [1 mark]• provides an accurate explanation of the food consumer's responsibility [1 mark]
2c)	The regulatory body responsible for regulating food standards in Australia is Food Standards Australia New Zealand.	<ul style="list-style-type: none">• identifies the body as Food Standards Australia New Zealand [1 mark]

Q	Sample response	The response:
3a)	High in fat: Mild curried meatballs High in sugar: Mini zucchini frittatas High in salt: Bacon and egg muffins Low in fibre: Tuna patties	<ul style="list-style-type: none"> • correctly determines the category of two of the four prototypes [1 mark] • correctly determines the category of another two of the four prototypes [1 mark]
3b)	The bacon and egg muffins are the best choice for infants as they require protein, calcium and complex carbohydrate to meet their growing needs <ul style="list-style-type: none"> - Highest in protein at 12.8g /100g - high in dietary fibre at 2.7 g/100 g. - highest in calcium at 113 mg/100 g 	<ul style="list-style-type: none"> • states bacon and egg muffins as the best option for the infant (NCM) [1 mark] • states the nutritional requirements for infant growth [1 mark] • justifies using data from the nutrition information panels [1 mark]

Q	Sample response	The response:
3c)	<p>Changes that could be made to mini zucchini frittatas formulation to improve for the NCM are:</p> <ul style="list-style-type: none"> ▪ increase the protein by adding lentils, as the prototype is lower in protein at 5.3 g/100 g. ▪ reduce the sugar (10.3 g/100 g) from this formulation by removing the maple syrup. ▪ add more cheese to increase the amount of calcium currently at 77mg/100g. 	<ul style="list-style-type: none"> • identifies one change to the formulation [1 mark] • justifies the change with data [1 mark] • identifies a second change to the formulation [1 mark] • justifies the change with data [1 mark]

Q	Sample response	The response:
4a)	<p>Part of the procedure that could be altered to make the formulation better for the NCM is to remove step 2 and fry the onion and garlic with the chicken in half the oil. This will cut down on the amount of oil being absorbed into the ingredients and therefore lower the oil ingested.</p>	<ul style="list-style-type: none"> • states one part of the procedure that could be altered [1 mark] • justifies the alteration [1 mark]
4b)	<p>To reformulate this prototype, substitute:</p> <ul style="list-style-type: none"> • chicken breast for chicken thighs, as they have less fat than chicken thighs and fat of 11.5 g/100 g is above the FSANZ recommendation of 3 g/100 g. Eating this much saturated fat regularly could lead to higher cholesterol, which compounds chronic heart disease. • low-salt kidney beans for regular kidney beans to reduce the sodium intake from 215 mg per 100 g. FSANZ recommends 120 mg per 100 g of solid food at most. Salt is dangerous for a consumer experiencing chronic heart disease as it can lead to high blood pressure, compounding the condition. 	<ul style="list-style-type: none"> • states one substitute from the list [1 mark] • justifies the substitution [1 mark] • states second substitute from the list [1 mark] • justifies the second substitution [1 mark] • uses data to support both substitutions [1 mark]

Extended response — Question 5

Criterion: Analyse the problem to determine the solution requirements, including the stakeholders, and explain their needs

The response:	M	The response:	M
<ul style="list-style-type: none"> identifies the needs of the food company provides an accurate determination of solution requirements to meet these needs 	3	<ul style="list-style-type: none"> identifies the needs of the elderly nutrition consumer market provides an accurate determination of solution requirements to meet these needs 	3
<ul style="list-style-type: none"> identifies the needs of the food company provides statements related to a solution requirement to meet these needs 	2	<ul style="list-style-type: none"> identifies the needs of the elderly nutrition consumer market provides statements related to a solution requirement to meet these needs 	2
<ul style="list-style-type: none"> identifies the needs of the food company <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> provides a statement about solution requirements for the food company 	1	<ul style="list-style-type: none"> identifies the needs of the elderly nutrition consumer market <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> provides a statement about solution requirements for the elderly nutrition consumer market 	1
<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0

Criterion: Synthesising and evaluating — Evaluate how prototype formulations meet the needs of the nutrition consumer market

The response, for Prototype 1:	M	The response, for Prototype 2:	M	The response, for Prototype 3:	M
<ul style="list-style-type: none"> provides a critical evaluation of the appropriateness of Prototype 1 for the NCM 	2	<ul style="list-style-type: none"> provides a critical evaluation of the appropriateness of Prototype 2 for the NCM 	2	<ul style="list-style-type: none"> provides a critical evaluation of the appropriateness of Prototype 3 for the NCM 	2
<ul style="list-style-type: none"> provides an evaluation 	1	<ul style="list-style-type: none"> provides an evaluation 	1	<ul style="list-style-type: none"> provides an evaluation 	1
<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0

Criterion: Synthesising and evaluating — Evaluate how prototype formulations reflect the elderly consumer trends

The response, for Prototype 1:	M	The response, for Prototype 2:	M	The response, for Prototype 3:	M
<ul style="list-style-type: none"> provides an accurate conclusion about the appropriateness of Prototype 1 aligning to all consumer trends 	3	<ul style="list-style-type: none"> provides an accurate conclusion about the appropriateness of Prototype 2 aligning to all consumer trends 	3	<ul style="list-style-type: none"> provides an accurate conclusion about the appropriateness of Prototype 3 aligning to all consumer trends 	3
<ul style="list-style-type: none"> provides a conclusion about how Prototype 1 reflects 2 consumer trends 	2	<ul style="list-style-type: none"> provides a conclusion about how Prototype 2 reflects 2 consumer trends 	2	<ul style="list-style-type: none"> provides a conclusion about how Prototype 3 reflects 2 consumer trends 	2
<ul style="list-style-type: none"> provides a statement about how Prototype 1 reflects 1 consumer trend 	1	<ul style="list-style-type: none"> provides a statement about how Prototype 2 reflects 1 consumer trend 	1	<ul style="list-style-type: none"> provides a statement about how Prototype 3 reflects 1 consumer trend 	1
<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0

Criterion: Synthesising and evaluating — Evaluate prototype formulations for sensory profiling

The response, for Prototype 1:	M	The response, for Prototype 2:	M	The response, for Prototype 3:	M
<ul style="list-style-type: none"> provides a critical evaluation of the 4 sensory properties of Prototype 1 using data 	4	<ul style="list-style-type: none"> provides a critical evaluation of the 4 sensory properties of Prototype 2 using data 	4	<ul style="list-style-type: none"> provides a critical evaluation of the 4 sensory properties of Prototype 3 using data 	4
<ul style="list-style-type: none"> provides an evaluation of 3 sensory properties of Prototype 1 using data 	3	<ul style="list-style-type: none"> provides an evaluation of 3 sensory properties of Prototype 1 using data 	3	<ul style="list-style-type: none"> provides an evaluation of 3 sensory properties of Prototype 1 using data 	3
<ul style="list-style-type: none"> provides an evaluation of 2 sensory properties of Prototype 1 using data 	2	<ul style="list-style-type: none"> provides an evaluation of 2 sensory properties of Prototype 1 using data 	2	<ul style="list-style-type: none"> provides an evaluation of 2 sensory properties of Prototype 1 using data 	2
<ul style="list-style-type: none"> provides an evaluation of 1 sensory property of Prototype 1 using data 	1	<ul style="list-style-type: none"> provides an evaluation of 1 sensory property of Prototype 1 using data 	1	<ul style="list-style-type: none"> provides an evaluation of 1 sensory property of Prototype 1 using data 	1
<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0

Criterion: Synthesising and evaluating — Evaluate and refine ideas and solutions to make justified recommendations for enhancement

The response:	M	The response:	M
<ul style="list-style-type: none"> identifies a prototype as the best solution provides detailed justification for why the prototype was chosen as the best solution 	4	<ul style="list-style-type: none"> makes effective recommendations for the enhancement of a prototype justifies these recommendations with detailed and accurate data from the stimulus 	4
<ul style="list-style-type: none"> identifies a prototype as the best solution provides justification for why the prototype was chosen as the best solution 	3	<ul style="list-style-type: none"> makes clear recommendations for the enhancement of a prototype justifies these recommendations with data from the stimulus 	3
<ul style="list-style-type: none"> identifies a prototype as the best solution provides evidence 	2	<ul style="list-style-type: none"> makes recommendations for the enhancement of a prototype justifies with evidence from the stimulus that is incomplete or not entirely appropriate 	2
<ul style="list-style-type: none"> identifies a prototype as the best solution 	1	<ul style="list-style-type: none"> makes a recommendation 	1
<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0	<ul style="list-style-type: none"> does not satisfy any of the descriptors above. 	0



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