

Food & Nutrition marking guide and response

External assessment 2021

Combination response (64 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 marking guide.

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.

Allow FT mark/s — refers to 'follow through', where an error in the prior section of working is used later in the response, a mark (or marks) for the rest of the response can still be awarded so long as it still demonstrates the correct conceptual understanding or skill in the rest of the response.

Marking guide

Short response

Q	Sample response	The response:
1	Nutrition information panels must provide: <ul style="list-style-type: none">• information per 100 g or 100 mL and per serving size• ingredients listed in order of quantity, identifying any allergens.	<ul style="list-style-type: none">• provides nutritional information per 100 g or 100 mL and per serving size [1 mark]• states ingredients listed in order of quantity and possible allergens included [1 mark]
2a)	A food company would consider: <ul style="list-style-type: none">• food components in appropriate ratios• processes required• needs of the NCM.	<ul style="list-style-type: none">• provides food components in appropriate ratios [1 mark]• provides processes required [1 mark]• provides needs of the NCM [1 mark]
2b)	The sensory properties in the graph show varied quality in aroma at 90% satisfactory or below and appearance at 100% satisfactory or below. Refinements are necessary.	<ul style="list-style-type: none">• identifies varied quality in aroma at approximately 90% for satisfactory or below [1 mark]• identifies quality in appearance at 100% for satisfactory or below [1 mark]
2c)	A change in the food components or ratio/quantities, and a change in the procedure will be required.	<ul style="list-style-type: none">• explains that a change may be needed to food components and/or quantities [1 mark]• explains that change may be needed to procedure [1 mark]

Q	Sample response	The response:
3a)	<p>A common dietary requirement of both NCMs is the need for sustained release, or low GI, carbohydrates.</p> <p>A consumer experiencing diabetes requires sustained release of sugar to maintain blood sugar levels therefore managing insulin levels.</p> <p>A fitness-focused consumer requires sustained release of sugar to maintain energy levels during exercise.</p>	<ul style="list-style-type: none"> • identifies a valid common requirement [1 mark] • states a valid reason for fitness-focused consumers [1 mark] • states a valid reason for consumers experiencing diabetes [1 mark]
3b)	<p>The most suitable muesli bar for both NCMs is Muesli bar 2, because it matches the kilojoules per 100 g at 1690 of Muesli bar 1 and it has the least:</p> <ul style="list-style-type: none"> • carbohydrates per 100 g at 49.4 g • sugar per 100 g at 11.6 g • fat per 100 g at 15.7 g • saturated fat per 100 g at 1.7g • salt per 100g at 64 mg. <p>The serving size is larger than other bars. This is because it has higher fibre and unprocessed components like rolled oats and roasted almonds. The higher protein in roasted almonds and almond meal lowers the GI. Less-processed components take longer to digest, with sustained release of sugar into the blood, but still providing energy, which is the primary focus of both consumer markets.</p>	<ul style="list-style-type: none"> • identifies muesli bar 2 as most suitable to meet the needs of the two NCMs [1 mark] • justifies this recommendation with data from the NIP and the ingredients list [1 mark] • demonstrates an understanding of the relationship between the data from the NIP and processing of ingredients in meeting the needs of fitness-focused consumers and consumers experiencing diabetes [1 mark]

Q	Sample response	The response:
4a)	<p>The lactose-intolerant consumer market is most in need of a new product, having the worst sensory profiling data:</p> <ul style="list-style-type: none"> • taste scoring 77% satisfactory or below • appearance scoring 50% satisfactory or below • texture scoring 78% satisfactory or below • aroma scoring 89% satisfactory or better. <p>Appearance is the most important sensory quality for this NCM, and 60% of survey respondents nominated the evening meal as most important.</p>	<ul style="list-style-type: none"> • identifies lactose-intolerant NCM is most in need [1 mark] • justifies with sensory profiling data [1 mark] • identifies most important sensory property to NCM [1 mark] • identifies meal category [1 mark] • justifies with data [1 mark]
4b)	<p>The product for lactose-intolerant consumers will need to:</p> <ul style="list-style-type: none"> • contain no dairy products • be an evening meal • have great sensory profiling, especially appearance, as this is the most important sensory property and must rate well. 	<ul style="list-style-type: none"> • identifies food component [1 mark] • identifies a meal requirement [1 mark] • identifies a sensory requirement [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"> explains the needs of the food company provides an accurate determination of solution requirements to meet these needs 	3	<ul style="list-style-type: none"> explains the needs of consumers experiencing diet-related conditions or chronic disease provides an accurate determination of solution requirements to meet these needs 	3
<ul style="list-style-type: none"> explains the needs of the food company provides a determination of some solution requirements to meet these needs 	2	<ul style="list-style-type: none"> explains the needs of consumers experiencing diet related conditions or chronic disease provides a determination of some solution requirements to meet these needs 	2
<ul style="list-style-type: none"> explains 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"> explains the needs of consumers experiencing diet related conditions or chronic disease <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> provides a statement about solution requirements for consumers experiencing diet-related conditions or chronic disease 	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 formulation 1:	M	The response, for Prototype formulation 2:	M	The response, for Prototype formulation 3:	M
<ul style="list-style-type: none"> provides a critical evaluation of the appropriateness of Prototype formulation 1 for the NCM 	3	<ul style="list-style-type: none"> provides a critical evaluation of the appropriateness of Prototype formulation 2 for the NCM 	3	<ul style="list-style-type: none"> provides a critical evaluation of the appropriateness of Prototype formulation 3 for the NCM 	3
<ul style="list-style-type: none"> provides reasons for the suitability of Prototype formulation 1 for the NCM 	2	<ul style="list-style-type: none"> provides reasons for the suitability of Prototype formulation 2 for the NCM 	2	<ul style="list-style-type: none"> provides reasons for the suitability of Prototype formulation 3 for the NCM 	2
<ul style="list-style-type: none"> provides statements related to the suitability of Prototype formulation 1 for the NCM 	1	<ul style="list-style-type: none"> provides statements related to the suitability of Prototype formulation 2 for the NCM 	1	<ul style="list-style-type: none"> provides statements related to the suitability of Prototype formulation 3 for the NCM 	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 consumer trends

The response, for Prototype formulation 1:	M	The response, for Prototype formulation 2:	M	The response, for Prototype formulation 3:	M
<ul style="list-style-type: none"> provides an accurate conclusion about the appropriateness of Prototype formulation 1 aligning to the consumer trends 	3	<ul style="list-style-type: none"> provides an accurate conclusion about the appropriateness of Prototype formulation 2 aligning to the consumer trends 	3	<ul style="list-style-type: none"> provides an accurate conclusion about the appropriateness of Prototype formulation 3 aligning to the consumer trends 	3
<ul style="list-style-type: none"> provides a conclusion about how Prototype formulation 1 reflects 2 consumer trends 	2	<ul style="list-style-type: none"> provides a conclusion about how Prototype formulation 2 reflects 2 consumer trends 	2	<ul style="list-style-type: none"> provides a conclusion about how Prototype formulation 3 reflects 2 consumer trends 	2
<ul style="list-style-type: none"> provides a statement about how Prototype formulation 1 reflects 1 consumer trend 	1	<ul style="list-style-type: none"> provides a statement about how Prototype formulation 2 reflects 1 consumer trend 	1	<ul style="list-style-type: none"> provides a statement about how Prototype formulation 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 formulation 1:	M	The response, for Prototype formulation 2:	M	The response, for Prototype formulation 3:	M
<ul style="list-style-type: none"> provides a critical evaluation of the 4 sensory properties of Prototype formulation 1 using data 	3	<ul style="list-style-type: none"> provides a critical evaluation of the 4 sensory properties of Prototype formulation 2 using data 	3	<ul style="list-style-type: none"> provides a critical evaluation of the 4 sensory properties of Prototype formulation 3 using data 	3
<ul style="list-style-type: none"> provides some evaluation of the sensory properties of Prototype formulation 1 	2	<ul style="list-style-type: none"> provides some evaluation of the sensory properties of Prototype formulation 2 	2	<ul style="list-style-type: none"> provides some evaluation of the sensory properties of Prototype formulation 3 	2
<ul style="list-style-type: none"> provides a statement related to the sensory properties of Prototype formulation 1 	1	<ul style="list-style-type: none"> provides a statement related to the sensory properties of Prototype formulation 2 	1	<ul style="list-style-type: none"> provides a statement related to the sensory properties of Prototype formulation 3 	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 formulation that is the best solution with refinements provides detailed justification with evidence from the stimulus 	4	<ul style="list-style-type: none"> provides effective recommendations for the refinement of a prototype formulation provides detailed justification for the recommendations with evidence from the stimulus 	4
<ul style="list-style-type: none"> identifies a prototype formulation that is the best solution with refinements provides justification 	3	<ul style="list-style-type: none"> provides appropriate recommendations for the refinement of a prototype formulation provides justification for the recommendations with evidence from the stimulus 	3
<ul style="list-style-type: none"> identifies a prototype formulation as the best solution provides evidence related to the suitability of this prototype formulation 	2	<ul style="list-style-type: none"> provides a recommendation for the refinement of a prototype formulation provides justification for the recommendation 	2
<ul style="list-style-type: none"> identifies a prototype formulation as the best solution <p style="text-align: center;">OR</p> <ul style="list-style-type: none"> provides evidence related to the suitability of a prototype formulation 	1	<ul style="list-style-type: none"> provides a statement about a change to a prototype formulation 	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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