



National
Qualifications
EXEMPLAR PAPER ONLY

EP18/AH/01

**Health and Food
Technology**

Date — Not applicable

Duration — 2 hours

Total marks — 40

Attempt ALL questions.

Write your answers clearly in the answer booklet provided. In the answer booklet, you must clearly identify the question number you are attempting.

Use **blue** or **black** ink.

Before leaving the examination room you must give your answer booklet to the Invigilator; if you do not, you may lose all the marks for this paper.



* E P 1 8 A H 0 1 *

Total marks — 40
Attempt ALL questions

1. Explain the implications for health of a vegetarian diet. 10

2. Evaluate the influence of **two** current food strategies or initiatives in meeting the challenge of improving the food choices made by adolescents. 10

3. In the development of baked products, explain how a manufacturer's choice of ingredients might be influenced by their functional properties.
Your explanation should include reference to **three** ingredients used in baked products. 10

4. Analyse the impact that a current ethical issue could have on consumer food choice. 10

[END OF EXEMPLAR QUESTION PAPER]



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Marking Instructions

These Marking Instructions have been provided to show how SQA would mark this Exemplar Question Paper.

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* E P 1 8 A H 0 1 *

General Marking Principles for Advanced Higher Health and Food Technology

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this Paper. These principles must be read in conjunction with the Detailed Marking Instructions, which identify the key features required in candidate responses.

- (a) Marks for each candidate response must always be assigned in line with these General Marking Principles and the Detailed Marking Instructions for this assessment.
- (b) Marking should always be positive. This means that, for each candidate response, marks are accumulated for the demonstration of relevant skills, knowledge and understanding: they are not deducted from a maximum on the basis of errors or omissions.
- (c) Candidates may demonstrate their skills, knowledge and understanding at different points in their response. Marks should be awarded for relevant and appropriate skills, knowledge and understanding wherever they are demonstrated.
 - (i) For marks to be awarded, candidates' responses must relate to the context and demonstrate the skill required by the question.
 - (ii) In this question paper, the following command words are used:

A:	Explain
B:	Evaluate
C:	Analyse

For each command word, the following provides an overview of the marking principles. Refer to the Detailed Marking Instructions for further guidance on how these principles should be applied.

A. Questions that ask candidates to Explain . . .

Candidates should make points that relate to cause and effect and/or make the relationship between things clear in the context of the question.

Candidates may provide straightforward points of explanation, developed points, or a combination of these.

Up to the total mark allocation for the question:

- 1 mark should be awarded for each accurate, relevant point of explanation.
- 1 further mark should be awarded for any accurate, relevant development of that point.

B. Questions that ask the candidate to Evaluate . . .

Candidates should make points which make a judgment or determine the value of something based on criteria.

Candidates may provide straightforward points, developed points, or a combination of these.

Up to the mark allocation for the question:

- 1 mark should be awarded for each accurate, relevant evaluative point.
- 1 further mark should be awarded for any accurate, relevant development of that point.

C. Questions that ask the candidate to Analyse . . .

Candidates should identify appropriate points of information and the relationship(s) between the points or their significance when taken together.

The relationship(s) identified by the candidate will go beyond describing the points of information and should support a structured line of argument.

The relationship(s) between the points of information could include:

- similarities and consistency in the information
- contradictions and inconsistency in the information

Up to the mark allocation for the question:

- 1 mark should be awarded for each accurate, relevant point of analysis.
- 1 further mark should be awarded for any accurate, relevant development of that point.

Detailed Marking Instructions for each question

Question	Expected response	Max mark	Additional guidance
1	<p>Points of explanation should include the following:</p> <ul style="list-style-type: none"> • details of an identified aspect of a vegetarian diet • details of related implication(s) for health <p>Where a candidate's response is linked to a specific type of vegetarian, the type must be correctly identified.</p> <p>Candidates may refer to one or more type of vegetarian in their response. Appropriate types of vegetarian could include:</p> <ul style="list-style-type: none"> • lacto-vegetarians, ovo-lacto-vegetarians, ovo-vegetarians, vegans • any other correctly identified type of vegetarian <p>Candidates may be awarded marks for responses that make appropriate references to a vegetarian diet:</p> <ul style="list-style-type: none"> • relevant macronutrients • relevant micronutrients • water, dietary fibre and energy 	10	<p>Candidates should use detailed subject-specific terminology to make clear the relationship(s) between a relevant point of information about an identified aspect of a vegetarian diet and the way(s) this could impact on health.</p> <p>1 mark will be awarded for a point of explanation or a development of a point of explanation.</p> <p>Marks can be awarded for each point or development of a point of explanation relating to an identified aspect of a vegetarian diet, wherever they appear in the candidate response.</p> <p>Extracts from sample answers linked to the same implication for health could include:</p> <p>Vegetarians avoid red meat and offal, which are the major sources of haem iron in the diet. A vegetarian's iron intake will therefore be from non-haem sources such as eggs, cereals, nuts and pulses, which is less well absorbed, so they are more likely to suffer from anaemia. <i>(1 mark for details of an aspect of a vegetarian diet linked to an implication for health of iron intake from non-red meat sources.)</i> Vegetarians who have a diet high in fruit and vegetables which are good sources of vitamin C are less likely to suffer from anaemia, as this vitamin enhances the absorption of non-haem iron. <i>(1 mark for details of an aspect of a vegetarian diet linked to the same implication for health.)</i></p> <p>However, nuts and pulses which often form a major part of a vegetarian's diet, are high in phytic acid which inhibits the absorption of iron, so increasing the risk of anaemia. <i>(1 mark for details of a different aspect of a vegetarian diet linked to the same implication for health.)</i></p> <p>Vitamin B12 is only found in animal food sources. Vegans may be more at risk from developing megaloblastic anaemia as they avoid all animal food sources. <i>(1 mark for details of an aspect of a specifically identified type of vegetarian diet linked to the same implication for health.)</i></p>

Question	Expected response	Max mark	Additional guidance
2	<p>Evaluative points should make a judgement:</p> <ul style="list-style-type: none"> on the way(s) current food strategies or initiatives may influence the food choices made by adolescents <p>Appropriate food strategies/initiatives could include:</p> <p>The Eatwell Plate; Revised Dietary Goals for Scotland; Beyond the School Gate; Better Eating, Better Learning; Change4life; Eat Better Feel Better; Supporting Healthy Choices; Take Life On, One Step at a Time; or any appropriate local strategy/initiative linked to a potential impact on the food choices made by an adolescent.</p>	10	<p>Candidates should make evaluative points related to the way(s) the identified food strategies or initiatives may influence the food choices made by adolescents.</p> <p>1 mark will be awarded for a point of evaluation or a development of a point of evaluation, up to a maximum of 6 marks for each current food strategy or initiative.</p> <p>For full marks, candidates must refer to two current food strategies or initiatives in their response.</p> <p>Candidates can be awarded marks in a number of ways:</p> <ul style="list-style-type: none"> marks may be awarded for accurate evaluative points relating to each identified current food strategy or initiative marks may be awarded for accurate evaluative comments relating to the identified current food strategies or initiatives when linked together <p>Extracts from sample answers could include:</p> <p>The Change4Life strategy uses television advertising which is a medium watched by most adolescents. Adolescents may pay little attention to guidance given by organisations or those they see as authority figures, so the messages given using television advertising may have more influence on their food choices as they may see this as less authoritative. <i>(1 mark for point of evaluation of a current food strategy, linked to a potential impact on the food choices made by an adolescent.)</i> Change4Life strategy also uses video clips to encourage engagement in healthier eating, but these are aimed at younger children so may not appeal to adolescents, therefore consequently have less influence on their diet. <i>(1 mark for developed point of evaluation linked to the same strategy.)</i></p> <p>The Revised Dietary Goals for Scotland provide recommendations for improving the nation's diet. Because this is a Scottish Government strategy and is based on scientific and other evidence from credible sources, an adolescent may choose to follow the advice given when making food choices. <i>(1 mark for point of evaluation of a current food strategy, linked to a potential impact on the food choices made by</i></p>

Question	Expected response	Max mark	Additional guidance
			<p><i>adolescents.</i>) However, the Dietary Goals do not provide details of practical ways of meeting these aims. An adolescent may not have knowledge, or have access to the knowledge of how to apply the information, so it may have little or no influence on the food choices made. (1 mark for developed point of evaluation linked to the same current food strategy, linked to the potential impact on the food choices made by adolescents.)</p> <p>The strategy, Better Eating, Better Learning suggests school meal providers should introduce new ways of presenting the foods that would help to meet the Dietary Goals, so that they are more appealing to school pupils. This might encourage adolescents to eat foods they may previously have not had the opportunity to choose, or may have avoided choosing. (1 mark for developed point of evaluation of a different food strategy linked to the potential impact on the food choices made by adolescents.)</p>
3	<p>Ingredients could include:</p> <ul style="list-style-type: none"> • flour, fat, sugar, eggs, liquid or any other appropriate ingredient <p>Where a candidate's response is linked to a specific type of baked product, the type must be clearly identified.</p> <p>Appropriate types of baked products could include:</p> <ul style="list-style-type: none"> • bread, cakes, pastry, biscuits or any other correctly identified type of baked product 	10	<p>Candidates should make points that make clear the relationship(s) between a relevant functional property of the identified ingredient and the way(s) this might influence the choice of ingredients made by the food manufacturer.</p> <p>Marks can be awarded for each point of explanation or development of a point of explanation. Developed points of explanation may refer to either a different functional property of the ingredient or to a different baked product, or to a different influence on the manufacturer's choice of ingredient.</p> <p>For example, a developed response could include explanation of:</p> <ul style="list-style-type: none"> • different functional properties of an ingredient linked to the same identified type of baked product <p>or</p> <ul style="list-style-type: none"> • the same functional property of an ingredient linked to a different type of baked product <p>or</p> <ul style="list-style-type: none"> • the same functional property of an ingredient linked to a different influence on the manufacturer's choice

Question	Expected response	Max mark	Additional guidance
	<p>Points of explanation should include the following:</p> <ul style="list-style-type: none"> • a description of the relevant functional properties • the potential influence on the choice of ingredient(s) for the manufacture of a baked product 		<p>For full marks, the candidate response must include three ingredients.</p> <p>A maximum of 6 marks can be awarded where one ingredient has been referred to in the response.</p> <p>A maximum of 8 marks can be awarded where two ingredients have been referred to in the response.</p> <p>The candidate may refer to specific types of baked product, or to baked products in general terms. There is no minimum/maximum number of types of baked products to which the candidate could refer.</p> <p>Extracts from sample answers linked to one ingredient could include:</p> <p>Sugar gives a sweet flavour to a cake. The degree of sweetness and the flavour imparted to the cake depends on the type of sugar used. For example, the molasses in brown sugar gives a different flavour compared to white sugar, so a manufacturer may choose the type of sugar which gives the best flavour in the finished cake. <i>(1 mark for explanation of a functional property of an ingredient linked to a way it might influence a manufacturer's choice.)</i> Sugar increases the coagulation temperature of egg proteins in a cake mixture. Sugar helps delay the coagulation long enough so that the air bubbles in the mixture have more time to expand before the eggs set the mixture, allowing the mixture to rise well. The manufacturer would include sufficient sugar to ensure a lighter cake. <i>(1 mark for explanation of a different functional property of the same ingredient linked to an influence on a manufacturer's choice.)</i></p> <p>If the manufacturer's brief is to restrict energy value of the cake, a manufacturer may choose to reduce the amount of sugar and add or increase the amount of raising agent to ensure that the product is sufficiently light to be acceptable to consumers. <i>(1 mark for explanation of the same functional property linked to a different way it might influence a manufacturer's choice.)</i></p> <p>Sugar binds to water molecules. This slows moisture loss and helps to prevent staleness in cakes. The manufacturer would include enough sugar to ensure an adequate shelf life for the cake. <i>(1 mark for explanation of a different functional property of the same ingredient linked to a way it might influence a manufacturer's choice.)</i></p>

Question	Expected response	Max mark	Additional guidance
4	<p>Candidates may be awarded marks for responses that, for the identified ethical issue, make appropriate references to:</p> <ul style="list-style-type: none"> • the matters addressed by the issue • range/availability of these food products • cost • labelling/certification of these food products • promotion strategies for these food products • sales statistics for these food products • or any other relevant response <p>Ethical issues could include:</p> <ul style="list-style-type: none"> • responsible sourcing/ethical trading policies • food miles • organic food production • genetic modification of foods • animal welfare/food assurance schemes • any other appropriate current ethical issue 	10	<p>Candidates should identify relevant points of information about possible consequences/implications for consumer food choice of products which address a current ethical issue, the relationship(s) between these points, and their significance when taken together.</p> <p>The relationship(s) between points of information could include:</p> <ul style="list-style-type: none"> • similarities and consistency in the information • contradictions and inconsistency in the information <p>1 mark will be awarded for a point of analysis or a development of a point of analysis.</p> <p>Extracts from sample answers based on one ethical issue could include:</p> <p>Ethical trading requires companies to pay above market price and return a greater percentage of the selling price to the producer, so can address injustices of conventional trade. Consumers who support this ethos may be encouraged to seek out these products. <i>(1 mark for link between ethical trading ethos and a way this might impact on consumer choice.)</i> The cost of some ethically traded products, for example honey, may be considerably higher in price. Evidence shows that this may discourage consumers, who might otherwise wish to support the principle, from purchasing the product. <i>(1 mark for significance when taken together and a way this might impact on consumer choice.)</i></p> <p>Some coffee shops and chains aim to increase sales by promoting their commitment to ethical trading policies by serving ethically produced drinks. Consumers may actively choose these shops/chains in order to purchase these products. <i>(1 mark for link between availability of ethically traded products and way this might impact on consumer choice.)</i> Only products which have been certified as being ethically traded may carry a logo identifying them as such, eg Fairtrade, Direct Trade or Rainforest Alliance. Clear labelling of these products offered by a retailer makes it easier for consumers to identify these, and may increase the probability of a consumer choosing to purchase. <i>(1 mark for link between labelling and a way this might impact on consumer choice.)</i></p>

[END OF EXEMPLAR MARKING INSTRUCTIONS]