



National
Qualifications
2017

2017 Health and Food Technology

Advanced Higher

Finalised Marking Instructions

© Scottish Qualifications Authority 2017

The information in this publication may be reproduced to support SQA qualifications only on a non-commercial basis. If it is reproduced, SQA should be clearly acknowledged as the source. If it is to be used for any other purpose, written permission must be obtained from permissions@sqa.org.uk.

Where the publication includes materials from sources other than SQA (secondary copyright), this material should only be reproduced for the purposes of examination or assessment. If it needs to be reproduced for any other purpose it is the centre's responsibility to obtain the necessary copyright clearance. SQA's NQ Assessment team may be able to direct you to the secondary sources.

These marking instructions have been prepared by examination teams for use by SQA appointed markers when marking external course assessments. This publication must not be reproduced for commercial or trade purposes.



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) If a specific candidate response does not seem to be covered by either the principles or detailed marking instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader.
- (d) 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, candidate's 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
 - (iii) For each candidate response, the following provides an overview of the marking principles. Refer to the specific marking instructions for further guidance on how these principles should be applied.

A. Questions that ask candidates to Explain . . .

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

Candidates may provide a number of straightforward explanations, 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 judgement 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 this question:

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

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

Candidates should identify appropriate points of information and the relationship(s) between 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 marks	Additional guidance
1.	<p>Micronutrients could include:</p> <ul style="list-style-type: none"> • Vitamin A, Vitamin B complex, Vitamin C, Vitamin D, Vitamin E, Vitamin K, Calcium, Phosphorus, Iron and Sodium. <p>Or any other micronutrient relevant to pregnant and lactating women.</p> <p>The explanation should include each of the following:</p> <ul style="list-style-type: none"> • A function of an identified micronutrient relevant to pregnant and/or lactating women. • The specific importance of the micronutrient in the diet of pregnant and/or lactating women. 	10	<p>Candidates should make points that make clear the relationship(s) between a relevant function of the micronutrient and its importance during pregnancy and/or lactation.</p> <p>1 mark will be awarded for each point of explanation or development of a point of explanation up to a maximum of 6 marks for each micronutrient. Developed points of explanation may refer to either a different function of the micronutrient relevant to pregnancy and/or lactation.</p> <p>For full marks, the candidate response should refer to at least three micronutrients relevant to pregnancy and/or lactation.</p> <p>Extracts from sample answers could include:</p> <ul style="list-style-type: none"> • Folic acid is required for the development of the brain and nervous system. Women are advised to ensure that their diet contains adequate supplies of folic acid before becoming pregnant and during pregnancy, especially in the first 3 months of pregnancy as folic acid reduces the risk of babies being born with neural tube defects such as spina bifida. (1 mark for explanation of function of folic acid linked to pregnancy). Folic acid is also essential for the development of red blood cells so is essential during pregnancy as the pregnant woman is at risk of anaemia as the foetus will have first call on her iron intake. (1 mark for developed explanation of different function of folic acid linked to pregnancy).

Question	Expected response	Max marks	Additional guidance
			<ul style="list-style-type: none"> • Vitamin D controls the absorption of calcium, so it is essential for pregnant women as in addition to the mothers needs it is also required for the development of the foetus's bones. (1 mark for explanation of function of Vitamin D linked to pregnant women/foetus). A diet low in vitamin D may result in poor calcium absorption so affecting the calcification of the foetus's bones and bone formation. (1 mark for development of explanation linked to Vitamin D and pregnant women/developing foetus). A diet low in vitamin D may result in poor calcium absorption. This may restrict the calcification of the foetus's bones and bone formation. A sufficient intake of Vitamin D is required to ensure this does not happen. As the baby has first call on the available nutrients the mother's bones and teeth are likely to suffer and increase the risk of osteomalacia in later life. (1 mark for further development of explanation linked to Vitamin D and pregnant woman). It is advised that breastfeeding women take a supplement of vitamin D as breast milk contains very low levels of vitamin D. The additional intake of vitamin D will reduce the risk of rickets in the breast fed child. (1 mark for explanation of Vitamin D linked to lactating woman). • Iron is a component of haemoglobin which is required to transport oxygen around the body to all cells and is necessary to provide the baby with an iron store for the first 4 months after birth as breast milk contains very little iron. (1 mark for explanation of function of iron linked to pregnant woman). A lack of iron during pregnancy can result in iron deficiency anaemia. Iron deficiency anaemia during pregnancy can increase the risk of the baby having a low birth weight. (1 mark for development of explanation linked to iron intake during pregnancy).

Question		Expected response	Max marks	Additional guidance
2.		Evaluative points should make a judgement on the use of colourings and preservatives in food manufacture.	10	<p>Candidates should make evaluative points related to the use of colourings and preservatives in food manufacture.</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 either colourings or preservatives.</p> <p>Candidates can be awarded marks in different ways:</p> <ol style="list-style-type: none"> 1. Marks can be awarded for accurate evaluative points relating to either colourings or preservatives. 2. Marks may be awarded for accurate evaluative comments relating to colourings and preservatives when taken together. 3. Marks will be awarded where the candidate demonstrates application of knowledge of use of colourings and/or preservatives in food manufacture. <p>Extracts from sample answers could include:</p> <ul style="list-style-type: none"> • The food manufacturer may choose to add a natural food colouring such as beetroot to replace the colour lost during processing. The natural colouring may be beneficial because it may produce a product which will appeal to consumers who wish to avoid artificial additives. (1 mark for point of evaluation of the function of colourings linked to the food manufacturing process). • Some artificial colourings (eg tartrazine) have been linked to hyper activity and attention disorders in children. Many parents may wish to avoid products containing these, so the manufacturer may choose not to use them to help ensure that the product is successful. (1 mark for point of evaluation of the function of colourings linked to the food manufacturing process).

Question			Expected response	Max marks	Additional guidance
					<ul style="list-style-type: none"> The food manufacturer may choose to use preservatives to control the growth of micro-organisms that cause decay in food products. This will benefit the manufacturer as they are likely to reduce costs which might arise from wasted food, therefore extending the shelf life of the product (1 mark for point of evaluation of the function of preservatives linked to food manufacturing). As preservatives will increase shelf life, this may increase the sales of the product as the consumer maybe more likely to buy a product that can be stored at home for longer without the risk of waste (1 mark for developed point of evaluation linked to food manufacturing).

Question	Expected response	Max marks	Additional guidance
3.	<p>Evaluative points should make judgements on the ways:</p> <p>Advertising is used by manufacturers when promoting food products linked to impact on consumer food choice.</p> <p>Appropriate advertising techniques could include:</p> <ul style="list-style-type: none"> • radio • TV • social media • posters • celebrity endorsement • positive health claims • ethical/environmental claims • vouchers • or any other valid advertising technique used to promote their products to consumer. 	10	<p>Candidates should make evaluative points related to advertising techniques used by food manufacturers when promoting their products. 1 mark will be awarded for a point of evaluation or a development of a point of evaluation.</p> <p>Marks can be awarded for each point or development of a point of evaluation related to the identified technique, wherever they appear in the candidate response.</p> <p>Extracts from sample answers could include:</p> <ul style="list-style-type: none"> • Food manufactures may advertise their product at the time when their target market is most likely to be watching television eg, snack food may be advertised during a sports event. As snacks are often eaten when watching sports, this may increase sales of these for the manufacturer. (1 mark for point of evaluation of the use of a valid advertising technique used by food manufacturers to promote their products). TV advertising can be expensive as it reaches a large audience. If the audience does not contain enough of the target market, it may not create enough sales for the manufacturer to recoup the expense. (1 mark for developed point of evaluation linked to the same use). • Consumers, particularly children, are more likely to buy a food product which is endorsed by a celebrity than other brands of the same food. Food manufactures that use celebrities in their advertising may be more likely to increase sales. eg Nicole Scherzinger promoting Müller yoghurts. (1 mark for point of evaluation of the use of a valid advertising technique used by food manufacturers to promote their products).

Question			Expected response	Max marks	Additional guidance
					<ul style="list-style-type: none"> Food manufacturers often use in store tasting sessions to promote or advertise a product. This allows the consumer to try the product and if they like it, to go on to buy it, increasing sales for the manufacturer. (1 mark for point of evaluation on the valid advertising technique used by food manufacturers to promote their food products).

Question	Expected response	Max marks	Additional guidance
4.	<p>Candidates may be awarded marks for responses that make appropriate references to:</p> <ul style="list-style-type: none"> • Scottish Dietary Goals • Scottish Dietary Targets/The Eatwell Plate • Beyond the School Gate • Better Eating, Better Learning • Change4life • Eat Better, Feel Better • Supporting Healthy Choices • Take Life On • One Step at a Time • Eatwell Guide • Or any other valid dietary guidance which impacts on health of adolescents. 	10	<p>Candidates should identify appropriate points of information about following the guidance available to adolescents and the relationship(s) between the point(s) and/or their significance when taken together on the potential impact on health of adolescents.</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 could include:</p> <ul style="list-style-type: none"> • The revised dietary goals for Scotland advise a reduction in calorie intake by 120 kcal per day. The potential impact of this would be a reduction in obesity in adolescents particularly those who are very active. However, if adolescents do not follow this guidance excess energy will be stored as fat increasing risk of weight gain/obesity. (1 mark for link between guidelines and potential health impact of adolescents). • The Eatwell Guide suggests that beans, peas and lentils are good alternatives to meat because they are lower in fat. This could reduce the risk of weight gain in adolescents, if consumed as an alternative to high fat foods regularly. (1 mark for link between guidelines and potential impact on health of adolescents). These foods are also higher in fibre, therefore hopefully preventing constipation in adolescents. (1 mark for developed point of same guidelines having potential impact on health of adolescents).

Question			Expected response	Max marks	Additional guidance
					<ul style="list-style-type: none"> Guidelines do not allow any confectionery to be sold in school, including from vending machines. As confectionery is high in sugar, this will reduce the overall sugar which may be consumed by adolescents in school. This reduction in sugar intake may contribute to a decrease in tooth decay in adolescents. (1 mark for link between guidelines, and health of adolescents). Also, this reduced sugar intake may reduce risk of weight gain which can lead to overweight/obesity in adolescents (1 mark for developed point on impact of health of adolescents).

[END OF MARKING INSTRUCTIONS]