



National  
Qualifications  
2022

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## 2022 Health and Food Technology

### Higher

## Finalised Marking Instructions

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## General marking principles for Higher Health and Food Technology

*Always apply these general principles. Use them in conjunction with the detailed marking instructions, which identify the key features required in candidates' responses.*

- (a) Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.
- (b) If a 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.
- (c) Award marks only where responses relate to the question asked. If candidates give points of knowledge without specifying the context, these should be awarded marks unless it is clear that they do not relate to the context of the question.

For explain questions 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. They may provide a number of straightforward explanations or a smaller number of developed explanations, or a combination of these.

Up to the total mark allocation for this question:

- award **1 mark** for each accurate relevant point of reason
- award a **further mark** for any accurate relevant point that is developed from the same reason.

**Example question:** Explain factors that could influence a teenager's choice of food.

**Example answer:** Teenagers tend to have a lower income therefore they are more likely to choose foods that are cheaper in price. (**1 mark** for explanation linked to budget) However, cheaper food products are often higher in sugar, fat or salt, so can cause problems such as tooth decay. (**1 additional mark** for developed explanation linked to the choice of cheaper foods)

For evaluate questions candidates should make a number of comments that make a judgement and determine the value of something based on the criteria provided in the question. They may provide a number of straightforward comments or a smaller number of developed comments, or a combination of these.

Up to the total mark allocation for this question:

- award **1 mark** for each accurate, relevant evaluative comment linked to the context of the question
- award a **further mark** for any accurate, relevant evaluative comment that is developed from the same point of information.

**Example question:** Evaluate the impact of using organic ingredients in a café.

**Example answer:** Organic produce may have a shorter shelf life, which may be less beneficial as there may be more waste in the café (**1 mark** for evaluative comment) and if this happened regularly this could contribute to a loss of profits for the café. (**1 additional mark** for developed answer)

For analyse questions candidates should make a number of comments related to the context of the question. They should identify appropriate information from the given sources, the relationship between the identified information, and their significance when taken together.

Up to the total mark allocation for this question:

- award **1 mark** for each explanation of the impact of one piece of information linked to the context of the question
- award a **further mark** for an explanation that is developed, to include the impact of a piece of information from a second source linked to the same identified piece of information.

**OR**

- award **2 further marks** for an explanation that is developed to include the impact of further information from two further sources linked to the same identified piece of information.

**Example question:** A 35-year-old man is training for a marathon. Analyse aspects of his diet in relation to the Dietary Reference Values for 19–50-year-old males.

**Example answer:** His energy intake is higher than he requires, this could help him when he is training. (1 mark for explanation of the impact of the nutrient intake linked to the DRV)  
This will prevent him from getting tired. (1 mark for possible consequence of the nutrient intake on health) The wholemeal pasta will provide carbohydrates that will contribute to his energy intake. (1 mark for conclusion about the contribution made by his lunch)

Marking instructions for each question

Question		Expected response	Max mark	Additional guidance
1.	(a)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>fruits/vegetables are high in fibre. This is good as it will help keep the faeces soft and bulky and so prevent constipation in the elderly. <b>(1 mark for evaluative comment)</b> This will help to prevent diverticulitis/bowel cancer <b>(additional mark for developed response)</b></li> <li>the fibre in fruits/vegetables would give a feeling of fullness which is good as it means that there is less likelihood of snacking on high fat/sugary foods therefore reducing weight gain. <b>(1 mark for evaluative comment)</b> This will help to prevent obesity <b>(additional mark for developed response)</b></li> <li>fruits/vegetables are low in calories. This is good as consumers so may be at risk of weight gain if they are inactive and do not burn off the calories they consume</li> <li>fruits/vegetables are high in the ACE vitamins. This is good as these vitamins are anti-oxidants so help prevent some types of cancer</li> <li>fruits/vegetables are high in ACE vitamins. This is good as these vitamins can lower LDL cholesterol <b>(1 mark for evaluative comment)</b> helping reduce the risk of CHD. <b>(additional mark for developed response)</b></li> </ul> <p>Or any other valid response</p>	4	<p>Candidates should make a number of evaluative comments related to contribution of fruit and vegetables in the diet.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> <li>shows a clear understanding of a fact related to fruit and vegetables in the diet</li> <li>includes a judgement on the contribution made by fruit and vegetables in the diet</li> <li>comments on the impact of including fruit and vegetables in the diet.</li> </ul> <p>Candidates may provide a number of straightforward evaluations or a small number of developed evaluations, or a combination of these.</p> <ul style="list-style-type: none"> <li>Award <b>1 mark</b> for each relevant evaluation.</li> <li>Award a <b>further mark</b> for any evaluation that is developed.</li> <li>Award a <b>maximum of 3 marks</b> for evaluations linked to any one contribution made by fruit and vegetables in the diet.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 4 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
(b)	<p>Possible responses could include:</p> <p><b>Aspect of the diet: energy</b></p> <ul style="list-style-type: none"> <li>the male's energy intake is low. This could leave him feeling tired and lacking in energy <b>(1 mark for explanation of the impact of his energy intake linked to the DRV)</b></li> <li>this could prevent him from taking part in activities and exercise which would benefit his heart and therefore increase risk of CHD which is more common in the elderly <b>(1 mark for possible consequence of his energy intake on his health)</b></li> <li>the wholemeal sandwich contains carbohydrate which would contribute to his energy intake. <b>(1 mark for conclusion about the contribution made by the lunch)</b></li> </ul> <p><b>Aspect of the diet: protein</b></p> <ul style="list-style-type: none"> <li>the male's protein intake is high. The excess protein could be converted into fat. This would lead to weight gain in the male <b>(1 mark for explanation of the impact of his protein intake linked to the DRV)</b></li> <li>this could lead to obesity which could make the elderly man more likely to suffer from heart disease/type 2 diabetes <b>(1 mark for possible consequence of his energy intake on his health)</b></li> <li>the lentils in the soup will be high in protein so will contribute to his high protein intake. <b>(1 mark for conclusion about the contribution made by the lunch)</b></li> </ul>	9	<p>Candidates should make a number of comments related to the 70-year-old male's diet. They should identify appropriate information from Table 1, Table 2 and the lunch; the relationship between this information; and their significance when analysed together.</p> <p>For <b>each of the three</b> identified aspects of the male's diet/nutrients in relation to the DRVs:</p> <ul style="list-style-type: none"> <li>award <b>1 mark</b> for explaining the impact of different aspects of the male's diet in relation to the DRVs</li> <li>award <b>1 mark</b> for explaining the possible consequences for the male's health</li> <li>award <b>1 mark</b> for reaching a conclusion about the contribution made by the lunch to the male's diet.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 9 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
	<p><b>Aspect of the diet: sodium</b></p> <ul style="list-style-type: none"> <li>the male's sodium intake is high. Too much sodium in the diet could lead to high blood pressure <b>(1 mark for explanation of the impact of his sodium intake linked to the DRV)</b></li> <li>this could lead to a stroke which can be common in the elderly <b>(1 mark for possible consequence of his sodium intake on his health)</b></li> <li>the ham in the sandwich would contain sodium which would contribute to his sodium intake. <b>(1 mark for conclusion about the contribution made by the lunch)</b></li> </ul> <p><b>Aspect of the diet: fibre</b></p> <ul style="list-style-type: none"> <li>the male's fibre intake is low. This could lead to constipation which is common in the elderly <b>(1 mark for explanation of the impact of his fibre intake linked to the DRV)</b></li> <li>this could lead to bowel disorders/bowel cancer <b>(1 mark for possible consequence of his fibre intake on his health)</b></li> <li>the wholemeal sandwich will contain fibre and contribute towards his intake. <b>(1 mark for conclusion about the contribution made by the lunch)</b></li> </ul> <p><b>Aspect of the diet: vitamin D</b></p> <ul style="list-style-type: none"> <li>the male's intake of Vitamin D is low therefore this can lead to weakness in his bones and teeth <b>(1 mark for explanation of the impact of his Vitamin D intake linked to the DRV)</b></li> <li>a continued lack of vitamin D could lead to osteoporosis which is common in the elderly <b>(1 mark for possible consequence of his Vitamin D intake on his health)</b></li> <li>Vitamin D can be found in the cheese and would help to contribute towards his Vitamin D intake. <b>(1 mark for conclusion about the contribution made by the lunch)</b></li> </ul> <p><b>Or any other valid response.</b></p>		

Question	Expected response	Max mark	Additional guidance
(c)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>• osteoporosis results in bones breaking more easily therefore causing pain/discomfort</li> <li>• broken bones will mean that there is a lack of mobility therefore leading to a lack of exercise leading to weight gain <b>(1 mark for explanation showing link between osteoporosis and health)</b> so increasing the risk of obesity/type 2 diabetes due to lack of exercise <b>(additional mark for developed response)</b></li> <li>• osteoporosis is a condition affecting the bones making them thinner and weaker so bones are more likely to break <b>(1 mark for explanation showing link between osteoporosis and health)</b> which can affect mental well-being due to mobility restrictions/changes in lifestyle <b>(additional mark for developed response)</b></li> <li>• osteoporosis can cause curvature of the spine therefore causing back pain <b>(1 mark for explanation showing link between osteoporosis and health)</b> which can cause poor mental health <b>(additional mark for developed response)</b></li> <li>• osteoporosis causes the bones in the spine to curve therefore leading to loss of height.</li> </ul> <p><b>Or any other valid response.</b></p>	3	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing link to osteoporosis and health.</p> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each accurate relevant explanation linked to osteoporosis and health.</li> <li>• Award an <b>additional mark</b> for a developed response.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 3 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
(d)	<p>Possible responses could include:</p> <p><b>Functional foods:</b></p> <ul style="list-style-type: none"> <li>• some functional foods are high in Omega 3 which is good as the increased intake can reduce LDL cholesterol <b>(1 mark for evaluative comment)</b> which can reduce the risk of heart disease <b>(additional mark for developed response)</b></li> <li>• functional foods often have additional vitamins and minerals. This is good for a consumer who does not have a balanced diet/may be missing food groups can meet their nutritional requirements easier</li> <li>• there is an increasing number of functional foods on the market. This is good for the consumer as it offers them more choice</li> <li>• functional foods can often be more expensive than similar products. This is bad for those consumers on a limited budget as they may not be able to afford them <b>(1 mark for evaluative comment)</b> so may restrict their food choice/lead to an unbalanced diet. <b>(additional mark for developed response)</b></li> </ul> <p><b>Cook-chill:</b></p> <ul style="list-style-type: none"> <li>• there are many cook-chill foods available on the market which is good because it will add variety to a consumer's diet</li> <li>• some cook chill foods are available in low fat/salt/sugar versions. This is good as it allows the consumer to make healthier food choices <b>(1 mark for evaluative comment)</b> reducing the risk of obesity/CHD/type 2 diabetes <b>(additional mark for developed response)</b></li> <li>• cook chill foods come in a variety of sizes this is good as it offers the consumer choice/the option of buying larger portions to feed a family/single portions for one person households <b>(1 mark for evaluative comment)</b> reducing waste <b>(additional mark for developed response)</b></li> </ul>	4	<p>Candidates should make a number of evaluative comments related to the technological developments and the consumer.</p> <p>Award for each response that:</p> <ul style="list-style-type: none"> <li>• shows a clear understanding of functional foods</li> <li>• includes a judgement on the suitability of using functional foods for the consumer</li> <li>• comments on the impact of using functional foods on the consumer</li> <li>• shows a clear understanding of cook-chill products</li> <li>• includes a judgement on the suitability of using cook-chill products for the consumer</li> <li>• comments on the impact of using cook-chill products on the consumer.</li> </ul> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each relevant evaluation.</li> <li>• Award a <b>further mark</b> for any evaluation that is developed.</li> <li>• Award a <b>maximum of 3</b> marks responses linked to any one technological development.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 4 marks)</i></p>



Question			Expected response	Max mark	Additional guidance
			<ul style="list-style-type: none"> <li>some cook chill foods may be cheaper than buying individual ingredients this is good for the consumer who is on a limited budget.</li> </ul> <p><b>Or any other valid response.</b></p>		

Question		Expected response	Max mark	Additional guidance
2.	(a)	<p>Possible responses could include:</p> <p><b>Concept screening:</b></p> <ul style="list-style-type: none"> <li>• some ideas for the new breakfast pot are kept and some are discarded so that the manufacturer takes forward the ideas that best meet the brief</li> <li>• a specification for the new breakfast pot is developed at this stage so ensuring that the manufacturer meets the needs of the brief.</li> </ul> <p><b>First production run:</b></p> <ul style="list-style-type: none"> <li>• allows the manufacturer to make the breakfast pot for the first time as a full production run so the breakfast pot can be assessed</li> <li>• allows the quality assurance team to test the breakfast pot so they can ensure the quality and or uniformity of standards during the manufacturing process.</li> </ul> <p><b>Marketing plan:</b></p> <ul style="list-style-type: none"> <li>• the manufacturer will decide on the best way to promote the new breakfast pot so that sales will be maximized</li> <li>• packaging and labelling will be decided on so the consumers will be attracted to the new breakfast pot.</li> </ul> <p><b>Product Launch:</b></p> <ul style="list-style-type: none"> <li>• the breakfast pot is launched onto the market and sales are closely monitored so changes can be made to the marketing plan if needed</li> <li>• piloting of the breakfast pot may be carried out to monitor the sales in a small area initially therefore allowing further refinements prior to national launch.</li> </ul> <p><b>Or any other valid response.</b></p>	4	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing connections between the stages of food product development and developing a new muesli and yoghurt breakfast pot.</p> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for a correct explanation related to each stage.</li> </ul> <p><i>(up to a maximum of 4 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
(b)	<p>Possible responses could include:</p> <p><b>Crunchiness – 5 (very high):</b></p> <ul style="list-style-type: none"> <li>the breakfast pot has been rated very high/5 for crunchiness which indicates that it may have a high proportion of cereal in it. This may be suitable as teenagers often enjoy crunchy foods.</li> </ul> <p><b>Sweetness – 5 (very high):</b></p> <ul style="list-style-type: none"> <li>the breakfast pot has been rated very high/5 for sweetness which indicates that it may contain added sugar. This may not be suitable for teenagers as it could cause weight gain if the energy provided by the sugar is not burned off <b>(1 mark for evaluative comment)</b> increasing the risk of obesity. <b>(additional mark for developed response)</b></li> </ul> <p><b>Colour – 2 (low):</b></p> <ul style="list-style-type: none"> <li>the breakfast pot has been rated low/2 for colour which suggests that the product is an unattractive colour/bland looking. This may not be suitable for teenagers as they will not be encouraged to eat it if the colour does not appeal to them.</li> </ul> <p><b>Aroma – 2 (low):</b></p> <ul style="list-style-type: none"> <li>the breakfast pot has been given a rated low/2 for aroma. This suggests that there is not much smell to the product. This is bad as teenagers would be attracted to sweet/spicy smells so may not be tempted to try this product if there is little aroma to it <b>(1 mark for evaluative comment)</b> increasing the risk of waste. <b>(additional mark for developed response)</b></li> </ul> <p><b>Creaminess – 4 (High):</b></p> <ul style="list-style-type: none"> <li>the breakfast pot has been rated high/4 for creaminess which suggests that it has had cream added. This may not be suitable to teenagers if they do not want to have excess calories</li> <li><b>(1 mark for evaluative comment)</b> It may also increase the risk of obesity/C.H.D. <b>(additional mark for developed response)</b></li> </ul>	4	<p>Candidates should make a number of evaluative comments on the suitability of the breakfast pot for the teenagers.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> <li>shows a clear understanding of the rating relating to the muesli and yoghurt breakfast pot</li> <li>includes an appropriate judgement on the suitability of the muesli and yogurt breakfast pot for teenagers</li> <li>comments on the impact of appeal to teenagers.</li> </ul> <p>Candidates may provide a number of straightforward evaluations or a smaller number of developed evaluations, or a combination of these.</p> <ul style="list-style-type: none"> <li>Award <b>1 mark</b> for each relevant evaluation.</li> <li>Award a <b>further mark</b> for any evaluation that is developed.</li> <li>Award a <b>maximum of 2 marks</b> for developed evaluations linked to the same attribute.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 4 marks)</i></p>

Question		Expected response	Max mark	Additional guidance
	(c)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>• FSS aims to improve all aspects of food safety throughout the food chain, so ensuring that unsafe/contaminated food is not produced/sold, therefore reducing the risk of food poisoning for consumers'</li> <li>• FSS agree the licensing of meat processing companies/hygiene controls on meat and meat product therefore assisting the prevention of cross contamination resulting in food poisoning for the consumer</li> <li>• FSS helps educate consumers through leaflets/posters/a website therefore enabling the consumer to make better food hygiene-based choices/decisions preventing food poisoning</li> <li>• FSS helps to help consumers make informed choices therefore improving their diet.</li> </ul> <p><b>Or any other valid response</b></p>	<b>2</b>	<p>Candidates should make a number of points that make the issue plain or clear by showing connections between the role of Food Standards Scotland (FSS) and the role it plays in protecting the consumer.</p> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each accurate explanation.</li> </ul> <p><i>(up to a maximum of 2 marks)</i></p>

Question		Expected response	Max mark	Additional guidance
3.	(a)	<p>Possible responses could include:</p> <p><b>Calcium, phosphorus and vitamin D:</b></p> <ul style="list-style-type: none"> <li>calcium works with phosphorus to form/harden bones/teeth by forming calcium phosphate so ensuring bones/teeth are strengthened/hardened</li> <li>vitamin D aids the absorption of calcium into the bones/teeth so strengthening them</li> <li>vitamin D is required to be present in the intestine to aid the absorption of calcium so ensuring we can make use of the calcium in our food.</li> </ul> <p><b>Vitamin C and iron:</b></p> <ul style="list-style-type: none"> <li>vitamin C can increase the amount of iron that the body absorbs from plant sources therefore making more iron available to the body</li> <li>vitamin C changes iron into a more easily absorbable state so ensuring an adequate supply of red blood cells/hemoglobin, (1 mark for explanation) helping reduce the risk of anemia. (additional mark for developed response)</li> </ul> <p>Or any other valid response.</p>	3	<p>Candidates should make a number of points that make the issue plain or clear for example by showing connections between:</p> <ul style="list-style-type: none"> <li>calcium, phosphorus and vitamin D</li> <li>vitamin C and iron.</li> <li>Award <b>1 mark</b> for each accurate, relevant explanation linked to the interrelationships of the identified nutrients.</li> <li>Award a <b>further mark</b> for an explanation that is developed.</li> <li>Award a <b>maximum of 2 marks</b> for explanations linked to any one interrelationship.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 3 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
(b)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>• alternative proteins are a good source of protein/high in protein therefore giving vegetarians an alternative source to meet their protein intake</li> <li>• alternative proteins are available in many different formats so they can be used in a wide variety of dishes/meals therefore providing more of a balanced diet</li> <li>• alternative proteins can be low in saturated fat therefore reducing the risk of weight gain (<b>1 mark for explanation linking alternative proteins and healthy diet</b>) which in turn can prevent obesity (<b>additional mark for developed response</b>)</li> <li>• alternative proteins can be low in cholesterol so can reduce the risk of coronary heart disease</li> <li>• some alternative proteins can be low in salt therefore reducing the risk of high blood pressure (<b>1 mark for explanation linking alternative proteins and healthy diet</b>) which can then result in strokes/coronary heart disease (<b>additional mark for developed response</b>)</li> <li>• some alternative proteins can be high in fibre therefore preventing constipation so in turn reducing the risk of diverticulitis/bowel cancer. (<b>additional mark for developed response</b>)</li> </ul> <p><b>Or any other valid response</b></p>	<b>3</b>	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing link between alternative proteins and a healthy diet.</p> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each accurate relevant explanation.</li> <li>• Award an <b>additional mark</b> for a developed response.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 3 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
(c)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>• preservatives may be added during production of the breakfast cereal this is good as it may extend the shelf life of the breakfast cereal. <b>(1 mark for evaluative comment)</b> This is good as it also reduces waste <b>(additional mark for developed answer)</b></li> <li>• sweeteners can be used to enhance the flavour of the breakfast cereal without additional calories being added which would benefit consumers who are on a weight reduction diet. <b>(1 mark for evaluative comment)</b> However, some consumers may be concerned about use of artificial sweeteners so may avoid products using them <b>(additional mark for developed answer)</b></li> <li>• flavourings can be used to add a variety of different flavours to the breakfast cereals which is good as this will increase choice for consumers</li> <li>• some natural flavourings are expensive which may be less suitable for using in breakfast cereals as increased costs could be passed on to the consumer</li> <li>• colourings can be added to the breakfast cereals which would be good as they could make them look attractive and encourage consumers to try them</li> <li>• some people are sensitive to some colourings so adding colourings to breakfast cereals makes them unsuitable for certain groups of consumers. <b>(1 mark for evaluative comment)</b> This would reduce choice for those groups. <b>(additional mark for developed answer)</b></li> </ul> <p><b>Or any other valid response.</b></p>	4	<p>Candidates should make a number of evaluative comments related to the use of additives in breakfast cereals.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> <li>• shows a clear understanding of the use of food additives</li> <li>• includes a judgement on the suitability of using the food additives in breakfast cereals</li> <li>• comments on the impact of using the food additives on consumer choice.</li> </ul> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each relevant evaluation.</li> <li>• Award a <b>further mark</b> for any evaluation that is developed.</li> <li>• Award a <b>maximum of 2 marks</b> for evaluations linked to any one type of food additive.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 4 marks)</i></p>

Question		Expected response	Max mark	Additional guidance
4.	(a)	<p>Possible responses could include:</p> <p><b>Eggs:</b></p> <ul style="list-style-type: none"> <li>• aeration occurs when egg whites are whisked so creating a foam for the meringue</li> <li>• eggs when heated coagulate therefore helps set the meringue in the lemon meringue pie. <b>(1 mark for explanation linked to functional property and the lemon meringue pie).</b> The egg yolk will also set the lemon filling. <b>(additional mark for developed response)</b></li> </ul> <p><b>Fat:</b></p> <ul style="list-style-type: none"> <li>• fat provides ‘shortness’ to short crust pastry in the lemon meringue pie, giving the pastry a short/crumbly texture <b>(1 mark for explanation linked to functional property and lemon meringue pie)</b></li> <li>• the greater the proportion of fat to flour the shorter/crumblier the texture will be <b>(additional mark for developed response)</b></li> <li>• the type of fat used will affect the flavour and colour of the pastry in the lemon meringue pie for example, butter gives a richer taste and using a white fat will give a paler colour.</li> </ul> <p><b>Or any other valid response.</b></p>	3	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing connections between the functional properties of eggs or fat and a lemon meringue pie.</p> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each correct explanation.</li> <li>• Award an <b>additional mark</b> for a developed answer.</li> <li>• Award a <b>maximum of 2 marks</b> for explanations linked to the same ingredient.</li> </ul> <p><i>(up to a maximum of 3 marks)</i></p>



Question	Expected response	Max mark	Additional guidance
(b)	<p>Possible responses could include:</p> <p><b>Food Miles:</b></p> <ul style="list-style-type: none"> <li>• a consumer who is concerned about environmental issues will choose locally produced foods as they have low food miles. This may be bad for the consumer as it may limit their choice of foods</li> <li>• foods with low food miles are likely to be locally produced which is good for the consumer as they will be supporting the local economy</li> <li>• if a consumer is not concerned about food miles they may choose foods with high food miles, which is not good as the transport for these foods contribute to CO2 emissions.</li> </ul>	4	<p>Candidates should make a number of evaluative comments related to food miles or nutritional knowledge and a consumer's choice of food.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> <li>• shows a clear understanding of food miles or nutritional knowledge</li> <li>• includes a judgement on the effects on food choices</li> <li>• comments on the impact of food miles or nutritional knowledge on a consumer's food choice.</li> </ul> <p>Candidates may provide a number of straightforward evaluations or a smaller number of developed evaluations, or a combination of these.</p> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each relevant evaluation.</li> <li>• Award a <b>further mark</b> for any evaluation that is developed.</li> <li>• Award a <b>maximum of 2 marks</b> for developed evaluations linked to the same identified factor.</li> <li>• Award a <b>maximum of 3 marks</b> to evaluations linked to the same factor.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 4 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
	<p><b>Nutritional Knowledge:</b></p> <ul style="list-style-type: none"> <li>• a consumer with little nutritional knowledge may choose less healthy options/foods high in saturated fat/sugar/salt/low in fibre/oily fish/fruit and vegetables which would be bad as it may increase risk of dietary diseases coronary heart disease/obesity/hypertension/stroke/dental caries/constipation</li> <li>• nutritional knowledge on food labels may not be easy to understand by a consumer with little nutritional knowledge. This could be bad as it may lead to the consumer choosing unhealthy options for the family. <b>(1 mark for evaluative comment)</b>. This could lead to increased likelihood of obesity CHD/high blood pressure <b>(additional mark for developed response)</b></li> <li>• consumers with good nutritional knowledge may read nutritional labelling on food packets to make comparisons and so choose healthier option. This is good as it would lead to a healthy balanced diet</li> <li>• consumers with good nutritional knowledge have an increased awareness in the health benefits of healthy eating this is good as they are likely to choose foods which could improve their health and reduce the risk of diet related conditions in later life.</li> </ul> <p><b>Or any other valid response.</b></p>		

Question		Expected response	Max mark	Additional guidance
	(c)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>the Trading Standards Department promotes a fair market in consumer goods/services/foods therefore protecting the consumer from unfair traders/trading practices</li> <li>the Trading Standards Department is responsible for ensuring that all foods are sold in metric weights so protecting the consumer as they are able to compare food products</li> <li>the Trading Standards Department enforce The Consumer Protection from Unfair Trading Regulations 2008 therefore they make sure that consumers are not sold products/services aggressively</li> <li>the Trading Standards Department protects the consumer by enforcing The Food Safety Act therefore any trader found guilty of offences under this Act may be prosecuted.</li> </ul> <p><b>Or any other valid response.</b></p>	3	<p>Candidates should make a number of points that make the issue clear by explaining ways the Trading Standards Department can protect the consumer.</p> <ul style="list-style-type: none"> <li><b>Award 1 mark</b> for each accurate relevant interpretation of a point of knowledge related to the ways Trading Standards Department protect the consumer.</li> </ul> <p><i>(up to a maximum of 3 marks)</i></p>

Question		Expected response	Max mark	Additional guidance
5.	(a)	<p>Possible responses could include:</p> <p><b>Creamy Mexican Chicken:</b></p> <ul style="list-style-type: none"> <li>the dish contains chicken, this would be good as it would help the student to consume no more than 90g of red meat/processed meat per day</li> <li>if the chicken had been grilled with the skin removed, this would be good as it would help the student reduce their average intake of total fat to no more than 35% of food energy</li> <li>the creamy Mexican chicken may contain cream, this would be bad as it would not help the to reduce average intake of total fat to no more than 35% of food energy/saturated fat intake to no more than 11% of food energy</li> <li>the creamy Mexican chicken may contain added vegetables which would be good as it would help the student to increase their fruit and vegetable intake to at least 5 portions per day/400gm per day</li> <li>the creamy Mexican chicken may contain spices instead of salt which would be good as it would help the student to reduce their salt intake to less than 6g per day.</li> </ul> <p><b>Baked Potato:</b></p> <ul style="list-style-type: none"> <li>the baked potato will contain fibre, this is good as it will help the student increasing fibre to 30g per day</li> <li>the baked potato will have been baked in the oven so would not have required the addition of any additional fat. This is good as it would help the student to reduce average intake of total fat to no more than 35% of food energy.</li> </ul> <p><b>Or any other valid response</b></p>	4	<p>Candidates should make a number of evaluative comments related to the student and the suitability of the meal in relation to different pieces of current dietary advice.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> <li>shows a clear understanding of the ingredients in relation to current dietary advice</li> <li>indicates a judgment on the suitability of the meal for the student</li> <li>comments on the suitability of the meal for meeting the current dietary advice.</li> <li><b>Award 1 mark</b> for each relevant evaluation linked to different pieces of dietary advice.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 4 marks)</i></p>

Question		Expected response	Max mark	Additional guidance
	(b)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>• canteen staff must ensure that hands are washed before commencing task, so as to prevent cross contamination while preparing the creamy Mexican chicken</li> <li>• canteen staff should have suitable protective clothing/hair tied back, remove jewellery so as to prevent bacterial contamination when preparing/serving the creamy Mexican chicken</li> <li>• canteen staff would need to wash their hands after handling the raw chicken therefore preventing cross contamination</li> <li>• colour coded chopping boards/separate boards for raw meat and other ingredients should be used during the production of the creamy Mexican chicken because this would prevent cross contamination of bacteria which could lead to food poisoning</li> <li>• canteen staff must have appropriate food hygiene training so as to ensure that they are aware of all necessary hygiene measures.</li> </ul> <p><b>Or any other valid response.</b></p>	<b>3</b>	<p>Candidates should make a number of points that make the issue plain or clear by explaining ways food poisoning can be avoided in the preparation of the creamy Mexican chicken.</p> <ul style="list-style-type: none"> <li>• Award <b>1 mark</b> for each accurate, relevant explanation linked to food poisoning and the preparation of the creamy Mexican chicken.</li> </ul> <p><i>(up to a maximum of 3 marks)</i></p>

Question	Expected response	Max mark	Additional guidance
(c)	<p>Possible responses could include:</p> <ul style="list-style-type: none"> <li>genetically modified foods may have a higher nutritional value than other foods, this is good as consumers who are health-conscious may be more inclined to purchase them <b>(1 mark for evaluative comment)</b> therefore this may increase sales for the canteen <b>(additional mark for developed response)</b></li> <li>genetically modified foods may have a longer shelf life which is good, as the canteen can make more profit save due to less food waste</li> <li>there are no known long-term health effects on the human body of consuming genetically modified foods which is not good, as the health-conscious consumer may not want to purchase food from the canteen</li> <li>genetically modified foods are known to be more uniform in shape and size which is good as it makes them more aesthetically appealing to the consumer <b>(1 mark for evaluative comment)</b> which in turn will result in increased sales/profit for the canteen <b>(additional mark for developed response)</b></li> <li>genetically modified crops allow for great yield/crop due to resistance to pests this is good as it means they are always readily available so the canteen will not have to worry about supply chain issues.</li> </ul> <p><b>Or any other valid response.</b></p>	3	<p>Candidates should make a number of evaluative comments related to the use of genetically modified ingredients in a canteen.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> <li>shows a clear understanding of genetically modified foods</li> <li>indicates a judgment on the suitability of genetically modified ingredients in a canteen</li> <li>comments on the impact of genetically modified ingredients in a canteen.</li> </ul> <ul style="list-style-type: none"> <li>Award <b>1 mark</b> for each relevant evaluation.</li> <li>Award a <b>further mark</b> for any evaluation that is developed.</li> <li>Award a <b>maximum of 2 marks</b> for evaluations linked to the same aspect of the use of genetically modified ingredients.</li> </ul> <p style="text-align: right;"><i>(up to a maximum of 3 marks)</i></p>

[END OF MARKING INSTRUCTIONS]