



National
Qualifications
2024

2024 Health and Food Technology

National 5

Question Paper Finalised Marking Instructions

© Scottish Qualifications Authority 2024

These marking instructions have been prepared by examination teams for use by SQA appointed markers when marking external course assessments.

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



General marking principles for National 5 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) For marks to be awarded, responses must relate to the question asked. Where 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.
- (d) There are four types of question used in this question paper.

A: state/give/name/identify

B: describe

C: explain

D: evaluate.

For each question type, the following generic marking instructions provide an overview of the marking principles and an example of their application for each type.

A Questions that ask candidates to state/give/name/identify

Candidates should list a number of relevant items or facts. These should relate to the context of the question and do not need to be in any particular order, up to the total mark allocation.

Up to the total mark allocation for this question:

- award 1 mark for each relevant point of knowledge.

For example

Question: State one function of sodium.

Answer: *Maintenance of fluid balance.* (1 mark for correct fact)

B Questions that ask candidates to describe

Candidates should define or give an account of points relating to the question. They do not need to be in any particular order. Candidates may provide a number of straightforward points or a smaller number of developed points, or a combination of these.

Up to the total mark allocation for this question:

- award 1 mark for each accurate relevant point of knowledge linked to the context of the question.

For example

Question: Describe one way the cake could be stored to keep it in good condition.

Answer: *Store in an airtight container/wrap in foil/cling film.* (1 mark for correct description of method of storage)

C Questions that ask candidates to explain

Candidates should make the relationship between points clear, for example by giving accurate relevant points, showing connections between these and the context of the question. Candidates 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.

For example

Question: Explain two ways in which the man could use the information on food labels to help him make healthier food choices.

Answer: *He could check to see how much fat/sugar/salt/fruit/vegetables is in the product so he can choose/avoid these. (1 mark for accurate relevant point linked to the context of the question)*

D Questions that ask the candidates to evaluate

Candidates should make a number of evaluative comments which make a judgment based on the information provided, related to the context of the question. Candidates may provide a number of straightforward observations or a smaller number of developed observations, or a combination of these.

Up to the mark allocation for this question:

- award **1 mark** for each relevant evaluative comment linked to the text of the question
- award a **second mark** for any evaluative comment that is developed, as in the following example:

For example

Question: Taking account of the Dietary Reference Values (DRVs) for males aged 50 comment on the suitability of his day's meals.

Example: *The 50+ year old man's intake of sodium is too high, which is not good as this will make his high blood pressure worse. (1 mark for comment) This will increase his risk of a stroke. (A further mark for development)*

Question		Expected response(s)	Max mark	Additional guidance
1.	(a)	<p>Possible candidate responses could include:</p> <ul style="list-style-type: none"> • increase intake of wholegrain/wholemeal products • choose wholemeal breads instead of white bread • increase fruit/vegetable consumption • add pulses like beans, lentils to foods • for snacks eat fresh fruit or veg sticks instead of sugary foods. <p>Or any other valid response.</p>	2	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing connections increase fibre in the diet.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for each different way indicating making a change to the diet. <p>(up to a maximum of 2 marks)</p>
	(b)	<p>Possible candidate responses could include:</p> <ul style="list-style-type: none"> • Helps to remove waste from the body so preventing a build-up of chemicals/helps prevent bowel disorders • prevents constipation which lowers the risk of bowel cancer • gives a feeling of fullness so preventing overeating/snacking • may help lower cholesterol so reducing the risk of heart disease • (to swell with water) adding bulk to waste/faeces so preventing constipation. <p>Or any other valid response.</p>	2	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing connections between increasing dietary fibre and the benefits to health.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for each relevant explanation. <p>(up to a maximum of 2 marks)</p>
	(c)	<p>Possible candidate responses could include:</p> <ul style="list-style-type: none"> • eating breakfast provides the teenager with energy so they are able to carry out activities in school/start their day/concentrate in school • feel full from breakfast so will be less likely to snack on sugary/fatty/foods (before lunch/next meal) • fruit can eaten for breakfast therefore can help meet the current dietary goal of eat more fruit • if milk is added to cereal this can help their calcium intake which will help with bone/teeth development. <p>Or any other valid response</p>	2	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing connections between the teenager and eating breakfast.</p> <p>Candidates should explain two relevant reasons teenagers benefit from eating breakfast.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for each accurate explanation linked to teenagers. <p>(up to a maximum of 2 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
(d)	<p>Possible candidate responses could include:</p> <p>Protein:</p> <ul style="list-style-type: none"> protein is needed for growth spurt in a teenager, so growth could be stunted protein is needed for repair and maintenance in a teenager so injuries would be slow to repair. <p>Iron:</p> <ul style="list-style-type: none"> iron is needed for creation of red blood cells so the teenager can become anaemic iron is needed for creation of red blood cells so the teenager can feel tired/lethargic. <p>Calcium:</p> <ul style="list-style-type: none"> helps growth/development of bones/teeth so could lead to rickets/tooth decay/osteoporosis later in life. <p>Vitamin D:</p> <ul style="list-style-type: none"> helps the absorption of calcium so could lead to the risk osteoporosis in later life. <p>Vitamin B (group):</p> <ul style="list-style-type: none"> helps convert protein/fat/carbohydrates into energy so could lead to teenager being tired vitamin B is required for brain function so the teenager will find it difficult to concentrate in school. <p>Or any other valid response.</p>	4	<p>Candidates should list a number of relevant Nutrients which a teenager may be deficient in.</p> <p>These should relate to the context of the question and do not need to be in any particular order.</p> <p>Candidates should name two nutrients a teenage diet is lacking in.</p> <p>Candidates should then explain the link to health of being lacking in this nutrient.</p> <ul style="list-style-type: none"> award a maximum of 2 marks for correctly identified nutrients award a maximum of 2 marks for correct explanation of how deficiency affects health. <p style="text-align: right;">(up to a maximum of 4 marks)</p>

Question		Expected response(s)	Max mark	Additional guidance
2.	(a)	<p>Possible candidate responses could include:</p> <p>Energy (Less than she needs)</p> <ul style="list-style-type: none"> the 3-year-old girl has less energy than she requires which is not good as she may be too tired (1 mark) to take part in gymnastics/play activities (additional mark for developed answer) the 3-year-old girl has less energy than she requires which is not good as she is active and may begin to lose weight. <p>Protein (Less than she needs)</p> <ul style="list-style-type: none"> the 3-year-old girl has less protein than she requires which is not good as protein is for growth as she is a young girl and still growing the 3-year-old girl has less protein than she requires which is not good as she can't repair her body cells and tissues that she may get from an injury at gymnastics. <p>Vitamin B Group (Less than she needs)</p> <ul style="list-style-type: none"> the 3-year-old girl has less vitamin b than she requires, this is not good, as energy will not be released from food therefore, she may feel tired (1 mark) to take part in gymnastics/play activities (additional mark for developed answer) the 3-year-old girl has less vitamin B than she requires, this is not good as her nervous system may not function properly. 	6	<p>Candidates should make a number of evaluative comments which make a judgement based on the information provided.</p> <p>Candidates may provide a number of straightforward evaluations or a smaller number of developed evaluations, or a combination of these.</p> <p>Candidates should make comments on the suitability of aspects of the day's meals related to the individual in the case study.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> shows a clear understanding of the intake of the specified nutrient includes an appropriate judgement on the suitability of this intake for the toddler comments on the impact of this intake on the health of the toddler. <p style="text-align: right;">(Up to a maximum of 6 marks)</p> <ul style="list-style-type: none"> award 1 mark for each relevant evaluation award a further mark for any evaluation that is developed award a maximum of 4 marks for accurate evaluative comments relating to four different aspects of the day's meals related to the individual in the case study award a maximum of 2 marks for developed evaluations linked to an identified aspect of the day's meals. <p style="text-align: right;">(up to a maximum of 6 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
	<p>Vitamin C (More than she needs)</p> <ul style="list-style-type: none"> • the 3-year-old girl has less vitamin C than she requires, this is good as it will increase iron absorption which may reduce anaemia (1 mark) therefore she will avoid feeling tired. (additional mark for developed answer) • the 3-year-old girl has less vitamin C than she requires, this is good as it will help to heal wounds she may get at attending gymnastics/playing/nursery • the 3-year-old girl has less vitamin C than she requires, this is good as it is an antioxidant vitamin (one of the ACE vitamins) which may help to protect her from cancer/coronary heart disease in later life. <p>Calcium (More than she needs)</p> <ul style="list-style-type: none"> • the 3-year-old girl has more calcium than she requires, this is good as calcium helps develop strong bones and teeth (1 mark) and therefore decreasing the risk of rickets/osteoporosis in later life. (additional mark for developed answer). <p>Iron (Less than she needs)</p> <ul style="list-style-type: none"> • the 3-year-old girl has less iron than she requires, this is bad because she may suffer from anaemia (1 mark) and she may feel tired as a result. (additional mark for developed answer). <p>Or any other valid response.</p>		

Question		Expected response(s)	Max mark	Additional guidance
	(b)	<p>Possible candidate responses could include:</p> <p>Advantage:</p> <ul style="list-style-type: none"> • quicker to cook/simple to cook • many different cook chill products available • some products follow current dietary advice • may be cheaper than fresh ingredients/individual ingredients/making from scratch. <p>Disadvantage:</p> <ul style="list-style-type: none"> • can be more expensive when buying large quantities • may be high in fat/salt/sugar • requires refrigeration² • excess packaging (bad for environment). <p>Or any other valid response.</p>	2	<p>Candidates should state one advantage of cook chill foods.</p> <p>Candidates should state one disadvantage of cook chill foods.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for an advantage • award a maximum of 1 mark for a disadvantage. <p>(up to a maximum of 2 marks)</p>
	(c)	<p>Possible candidate responses could include:</p> <ul style="list-style-type: none"> • provide free and independent advice on how to deal with the complaint • help consumers make a formal complaint in written form by providing letter templates to amend • refer the consumer to environmental health for food safety/hygiene complaints • refer the consumer to Trading Standards for product description/weights complaints. <p>Or any other valid response.</p>	2	<p>Candidates must define or give an account of points which relate to the role of citizens advice bureau in protecting the consumer.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for each correct description. <p>(up to a maximum of 2 marks)</p>

Question		Expected response(s)	Max mark	Additional guidance
3.	(a)	<p>Possible candidate responses could include:</p> <p>Ingredients list:</p> <ul style="list-style-type: none"> • this highlights main allergens in the food product, this is good, as they will not suffer a reaction if they eat it • the position of an ingredient in the list gives the consumer an indication of the quantity of each ingredient which is good as they can make a more informed choice. <p>Manufacturers Name and Address:</p> <ul style="list-style-type: none"> • the consumer knows who to contact in case of a complaint which is good as they don't have to spend time searching for information. <p>Weight:</p> <ul style="list-style-type: none"> • the weight tells the consumer the volume of the product which is good as consumers can easily tell how much of the product they need to buy (when following a recipe) • allows the consumer to calculate the number of portions/packets they need to be buy, which is good, so they have the correct quantity • the weight can be used to compare prices, this is good as consumers can get value for money. <p>Or any other valid response.</p>	3	<p>Candidates should make a number of evaluative comments linked to the items on a food label.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> • shows a clear understanding of a feature on a food label • includes an appropriate judgement on the suitability of this feature for a consumer • comments on the impact of this feature on the needs of a consumer. • award 1 mark for each accurate evaluative comment • award a further mark for any evaluation that is developed. <p style="text-align: right;">(up to a maximum of 3 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
(b)	<p>Possible candidate responses could include:</p> <p>Market Research:</p> <ul style="list-style-type: none"> • to gauge consumer opinions e.g. whether there is a need for a particular product so they will know if it will sell • if there is a gap in the market so they are not creating a product that is already there • what competition exists from other manufacturers, so they know how to market the product for sale • to establish what the market trends are so they are making something the consumer will want • to help the company make a profit so they are making money and not a loss. <p>Sensory Testing:</p> <ul style="list-style-type: none"> • if the product is tested before going to launch and it is not liked by the consumer the manufacturer will therefore save time and money not developing a poor product • ingredients may or may not need changed so saving time in the long run in the development of the new product • manufacturer is getting valuable feedback on a new/existing product so they can adapt the product as necessary. <p>Or any other valid response.</p>	3	<p>Candidates should explain why a manufacturer should carry out market research before developing new products.</p> <p>Candidates should explain why a manufacturer should carry out sensory testing when developing a new product.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for each accurate explanation • award a further 1 mark for an explanation which is developed • a maximum of 2 marks can be awarded for either market research or sensory testing. <p style="text-align: right;">(up to a maximum of 3 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
(c)	<p>Possible candidate responses could include:</p> <p>Concept generation:</p> <ul style="list-style-type: none"> provides initial ideas for the new street food lunch product, so that the manufacturer can then choose best options helps to establish if there is a gap in the market, so that they will be able to sell it/it is not just a duplicate of one that already exists. <p>Concept screening:</p> <ul style="list-style-type: none"> considers all the ideas, some are taken forward and others are discarded, as they may not be viable a specification for the product may be written so helping to develop the product. <p>Prototype production:</p> <ul style="list-style-type: none"> to allow improvements to be made to the new street food lunch product, so that it will sell better to decide on the viability of the new street food lunch product, so that it will sell/make a profit. <p>Product testing:</p> <ul style="list-style-type: none"> allows manufacturer to gain consumers opinion to see if changes should be made helps manufacturer to further improve/refine the new street food lunch product, so that it will sell. <p>First production run:</p> <ul style="list-style-type: none"> to test the production line to see if the new product can be made successfully in bulk/safely/to the same quality to test the new product is suitable for bulk production, so that changes can be made if there are issues. 	4	<p>Candidates should identify two steps in the product development process and explain the role of each in the development of a new street food product.</p> <ul style="list-style-type: none"> award 1 mark for each correct response award a maximum of 2 marks for correctly identified steps in the product development process award a maximum of 2 further marks for valid explanations relating to each of the identified steps. <p style="text-align: right;">(up to a maximum of 4 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
	<p>Marketing plan:</p> <ul style="list-style-type: none"> • decisions will be taken on how the product will be promoted/advertised, so that sales are maximised • decisions will be taken on how the product will be packaged to attract consumer attention • decisions will be taken on the positioning of the product (for sale), so that it may sell more product/increase sales. <p>Product launch:</p> <ul style="list-style-type: none"> • the new street food lunch product is promoted to the market so maximising sales • allows the manufacturer to judge consumer response and amend aspects of the new street food lunch product, so increase sales. 		

Question		Expected response(s)	Max mark	Additional guidance
4.	(a)	<p>Possible candidate responses could include:</p> <ul style="list-style-type: none"> • peer pressure may influence teenagers as they may choose food to be the same as their friends/not wanting to be different/feeling part of a group, they may choose unhealthy/healthy options to fit in • teenagers are less likely to try new foods therefore this could limit the variety of foods they choose • teenagers budget may be limited and they will choose foods which they can afford, which will limit their choice • advertising could raise teenager’s awareness of foods, they had not tried, so may encourage them to try new foods • a teenager may choose foods that are advertised by a celebrity that they admire, as they are influenced by that person’s views. <p>Or any other valid response.</p>	3	<p>Candidates should make the relationship between things clear, for example by showing connections between factors affecting food choice and teenagers.</p> <p>Candidates should explain three ways factors can influence a teenagers food choice.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for an accurate explanation. <p style="text-align: right;">(up to a maximum of 3 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
(b)	<p>Possible candidate responses could include:</p> <p>Storage:</p> <ul style="list-style-type: none"> storing meat/poultry at the bottom of the fridge can prevent cross contamination because juices/blood will not leak/drip onto cooked foods store meat/poultry in an airtight container can prevent cross contamination because it will prevent raw food being in contact with other foods. <p>Preparation:</p> <ul style="list-style-type: none"> washing hands before/during/after handling high risk foods so preventing bacteria from hands transferring other foods/equipment equipment that is used to prepare high risk foods should not be cracked or chipped as this could lead to bacteria gathering and spread to cooked/low risk foods different coloured chopping boards should be used for high risk and low risk foods therefore will prevent bacteria being transferred. <p>Cooking:</p> <ul style="list-style-type: none"> cook meat/high risk food first before adding other ingredients to the pan to ensure bacteria is destroyed ensure high risk foods are cooked thoroughly to ensure no bacteria gets mixed with other food when being served make sure cooking equipment is cleaned to remove bacteria to ensure it is not transferred to low-risk foods in future cooking. <p>Or any other valid response.</p>	3	<p>Candidates should make the relationship between things clear, for example by showing connections between high risk food and cross contamination in each area.</p> <p>Candidates should explain three ways to prevent cross contamination in the three areas.</p> <ul style="list-style-type: none"> award a maximum of 1 mark for an accurate explanation. <p style="text-align: right;">(up to a maximum of 3 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
(c)	<p>Possible candidate responses could include:</p> <p>Current Dietary Advice;</p> <ul style="list-style-type: none"> eat more vegetables, (so helps meet advice of average intake of a variety of fruit and vegetables to reach at least 5 portions per person per day/more than 400g per day). <p>Adaptation/change:</p> <ul style="list-style-type: none"> add additional vegetables eg; onion, mushroom (accept any other appropriate vegetable). <p>Current Dietary Advice:</p> <ul style="list-style-type: none"> reduce salt (to 6g per day). <p>Adaptation/Change:</p> <ul style="list-style-type: none"> remove salt use lo-salt replace with garlic and herbs. <p>Current Dietary Advice:</p> <ul style="list-style-type: none"> reduce fat/saturated, (so helps meet advice for average intake of total fat to reduce to no more than 35% food energy/average intake in saturated fat to reduce to no more than 11% food energy). <p>Adaptation/Change:</p> <ul style="list-style-type: none"> grill bacon instead of frying replace cream with low fat alternatives. <p>Current Dietary Advice:</p> <ul style="list-style-type: none"> increases fibre, (so helps meet advice to increase intake of fibre/increase fibre intake to 30g per day). <p>Adaptation/Change:</p> <ul style="list-style-type: none"> replace the tagliatelle with wholemeal tagliatelle <p>Or any other valid response.</p>	4	<p>Candidates should define or give an account of changes which could be made to the ingredients.</p> <p>Candidates should show connections between changes made and current dietary advice.</p> <ul style="list-style-type: none"> award 1 mark for each relevant description of a change to the ingredients up to a total of 2 marks award 1 mark for correctly linking each change to different relevant current dietary advice. <p style="text-align: right;">(up to a maximum of 4 marks)</p>

Question			Expected response(s)	Max mark	Additional guidance
5.	(a)	(i)	<p>Possible candidate responses could include:</p> <p>Fair Trade Products Produce:</p> <ul style="list-style-type: none"> the fairtrade label is clearly marked on products this is good as consumers can easily identify these products when shopping so will save time there is an increasing range of fairtrade products which is good so consumers now have a wider choice of produce fair trade encourages purchase through fair trade stores/supermarkets/catalogues/websites therefore fairtrade products are available for the consumer from a variety of sources making shopping easier for the consumer fairtrade products give small producers a fair price for their products therefore will appeal to ethical/moral consumers. 	2	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing connections between increasing Fairtrade products and the benefits to the consumer.</p>
		(ii)	<p>Organic Produce:</p> <ul style="list-style-type: none"> organic food may taste better/better flavour, so the consumers think they are getting a better quality/more flavoursome product organic food uses fewer fertilisers/chemicals, so may be more beneficial to health/less likely to cause cancer/less likely to cause allergic reactions organic food uses fewer fertilisers/chemicals so may be better for consumers who are concerned about the environment organic food is becoming more popular so more products are being developed which means the consumer will have a wider choice. <p>Or any other valid response.</p>	2	<p>Candidates should make a number of points that make the issue plain or clear, for example by showing connections between increasing Organic products and the benefits to the consumer.</p> <ul style="list-style-type: none"> award 1 mark for each relevant explanation award a further 1 mark for an explanation which is developed. <p style="text-align: right;">(up to a maximum of 4 marks)</p>

Question	Expected response(s)	Max mark	Additional guidance
(b)	<p>Possible candidate responses could include:</p> <p>Lightweight</p> <ul style="list-style-type: none"> lightweight fabric is good as it does not add any weight to the packed lunch which makes it easier to carry the lightweight fabric may not protect the sandwich from damage, which is not good as the food could be wasted. <p>Washable fabric</p> <ul style="list-style-type: none"> washable fabric is good as it appeals to environmentally friendly parents as it can be reused. <p>Colourful Fabrics</p> <ul style="list-style-type: none"> different fabric choices are available, which is good as the child can choose a fabric they like so they will be more likely to want to use it. <p>Airtight seal</p> <ul style="list-style-type: none"> airtight seal is good as child can store food to eat later so the quality won't be compromised. <p>Variety of sizes</p> <ul style="list-style-type: none"> variety of sizes is good as the parents can choose a size that best fits the child's food that needs wrapped. <p>Reusable</p> <ul style="list-style-type: none"> being reusable is good as it appeals to environmentally friendly parents as it may reduce excess packaging going into landfill. <p>Or any other valid response.</p>	3	<p>Candidates should make a number of evaluative comments linked packaging of the child's sandwich.</p> <p>Award marks for each response that:</p> <ul style="list-style-type: none"> shows a clear understanding of a feature on a packaging includes an appropriate judgement on the suitability of this feature for the child's sandwich comments on the impact of this feature on the needs of a consumer. <ul style="list-style-type: none"> award 1 mark for each accurate evaluative comment award a further mark for any evaluation that is developed. <p style="text-align: right;">(up to a maximum of 3 marks)</p>

Question		Expected response(s)	Max mark	Additional guidance
	(c)	<p>Possible candidate responses could include:</p> <ul style="list-style-type: none"> • reduce intake of sugar/added sugars/sugary/fizzy drinks, as they turn into acid in the mouth • choose unrefined carbohydrates/wholemeal (pasta/rice/bread) products, as bacteria find these harder to break down into acid • clean teeth at least twice a day to ensure that sugars do not remain in the mouth, as they will cause dental caries • visit dentist at least every 6/12 months to ensure that early stage of damage is treated/identified and prevent further decay • eat more foods rich in calcium/vitamin D/phosphorus which give teeth their hardness thus strengthening enamel so preventing decay. <p>Or any other valid response.</p>	3	<p>Candidates should make the relationship between things clear, for example by showing ways of preventing dental caries in children.</p> <p>Candidates should explain three ways to prevent dental caries in children.</p> <ul style="list-style-type: none"> • award a maximum of 1 mark for an accurate explanation. <p style="text-align: right;">(up to a maximum of 3 marks)</p>

Question		Expected response(s)	Max mark	Additional guidance
6.	(a)	<p>Possible candidate responses could include:</p> <p>Advantages:</p> <ul style="list-style-type: none"> shelf life will be increased provides a higher quality product little or no need for chemical preservatives odourless and convenient packaging less economic loss due to longer shelf life. <p>Disadvantages:</p> <ul style="list-style-type: none"> added cost temperature control may be required (fridge storage) excess packaging once opened deteriorates quickly. <p>Or any other valid response.</p>	3	<p>Candidates should give two advantages of Modified Atmosphere Packaging.</p> <p>Candidates should give one disadvantage of Modified Atmosphere Packaging.</p> <ul style="list-style-type: none"> award a maximum of 1 mark for an advantage award a maximum of 1 mark for a disadvantage. <p>(up to a maximum of 3 marks)</p>
	(b)	<p>Possible candidate responses could include:</p> <p>Egg:</p> <ul style="list-style-type: none"> aeration occurs when eggs are whisked/beaten trapping air in baked products coagulation occurs giving structure to the meringue. <p>Fat:</p> <ul style="list-style-type: none"> fat provides 'shortness' to pastry fat gives a golden colour to the pastry affect the crumbly texture fat adds flavour to the pastry. <p>Or any other valid response.</p>	2	<p>Candidates must define or give an account of points which relate to the functional properties of each ingredient.</p> <ul style="list-style-type: none"> award a maximum of 1 mark for each correct description. <p>(up to a maximum of 2 marks)</p>

Question		Expected response(s)	Max mark	Additional guidance
(c)	(i)	Possible candidate responses could include: <ul style="list-style-type: none"> • assists with absorption of calcium • assists calcium and phosphorus with development/maintenance of strong bones/teeth • helps bone breaks/fractures heal more quickly • is needed for the clotting of blood. Or any other valid response.	1	Candidates should list a number of relevant items or facts. Candidates should name one function of vitamin D. <ul style="list-style-type: none"> • award 1 mark for each correct response. <p style="text-align: right;">(up to a maximum of 1 marks)</p>
	(ii)	Possible candidate responses could include: <ul style="list-style-type: none"> • Sunlight • Egg (yolk) • Fish liver oils • Liver • Oily fish • margarines • Fortified breakfast cereals • Fortified Dairy. Or any other valid response.	2	Candidates should list a number of relevant items or facts. Candidates should name two sources of vitamin D. <ul style="list-style-type: none"> • award 1 mark for each correct response. <p style="text-align: right;">(up to a maximum of 2 marks)</p>
(d)		Possible candidate responses could include: <ul style="list-style-type: none"> • it lubricates the joints • it boosts skin health and beauty • it regulates body temperature • flushes body waste. Or any other valid response.	2	Candidates should list a number of relevant items or facts. Candidates should give benefits of drinking water. <ul style="list-style-type: none"> • award 1 mark for each correct response. <p style="text-align: right;">(up to a maximum of 2 marks)</p>

[END OF MARKING INSTRUCTIONS]