



National
Qualifications
2026

2026 Health and Food Technology

National 5

Question Paper Finalised Marking Instructions

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

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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)	Possible candidate responses could include: Iron function: • Iron is required to create the haemoglobin/red blood cells • Iron is required to prevent anaemia • haemoglobin is required to carry oxygen around the body Iron food sources: • liver • red meat • beans • nuts • apricots • fortified breakfast cereals Vitamin A function: • an antioxidant that can help prevent some cancers/CHD • for the maintenance of normal vision in dim light/to make visual purple • for the normal function of the immune system • helps keep lining of digestive tract and mucous membranes moist/free of infection • helps to maintain healthy skin • helps ensure normal growth in children Vitamin A food sources: • dairy • liver • oily fish • egg yolk • carrots • spinach • apricots • tomatoes Or any other valid response.	4	Candidates should state one function of the nutrient iron. • award 1 mark for a correct function of Iron (up to a maximum of 1 mark) Candidates should name one food source of Iron. • award 1 mark for a correct source of Iron (up to a maximum of 1 mark) Candidates should state one function of the nutrient Vitamin A. • award 1 mark for a correct function of Vitamin A (up to a maximum of 1 mark) Candidates should name one food source of Vitamin A. • award 1 mark for a correct source of Vitamin A (up to a maximum of 1 mark)

Question		Expected response(s)	Max mark	Additional guidance
	(b)	Possible candidate responses could include: • check food labels and choose those that contain less salt • add less salt when cooking/at the table • replace salt with black pepper/herbs/spices • make your own stocks and gravy instead of using stock cubes or powders • taste food before adding salt • eat cured fish and meat less often or in smaller amounts • choose unsmoked back bacon which can be lower in salt than smoked varieties • replace salty snacks like crisps and nuts with fruit and veg Or any other valid response.	2	Candidates should define or give an accurate point which relates to practical ways to reduce salt in the diet. Candidates should describe two relevant ways to reduce salt consumption • award 1 mark for each relevant description of a practical way to reduce salt consumption in the diet (up to a maximum of 2 marks)
	(c)	Possible candidate responses could include: • salt increases our blood pressure so decreasing will reduce the risk of hypertension/stroke • salt increases our blood pressure so decreasing will reduce the risk of coronary heart disease • salt can raise blood pressure so increases risk of diabetes • high salt intake can cause us to retain water so causes water retention which can lead to heart failure • salt can be bad for bones so increases the risk of osteoporosis Or any other valid response.	2	Candidates should make a number of points that make the issue plain or clear, eg by showing connections between decreasing salt and the benefits to health. • award a maximum of 1 mark for each relevant explanation (up to a maximum of 2 marks)

Question			Expected response(s)	Max mark	Additional guidance
	(d)		Possible candidate responses could include: • Food Standards Scotland (FSS) provides information on food safety, which helps the consumer avoid food poisoning • FSS provides information on healthy eating, which helps the consumer make healthy choices • FSS provides information on hygiene to businesses, which helps prevent the consumer suffering from food poisoning • FSS provides information on food labelling, which helps the consumer make informed choices • FSS produces product recall notices so ensuring consumer safety Or any other valid response.	2	Candidates must define or give an account of points which relate to the role of Food Standards Scotland in protecting the consumer. • award a maximum of 1 mark for each correct description (up to a maximum of 2 marks)

Question		Expected response(s)	Max mark	Additional guidance
2.	(a)	Possible candidate responses could include: Energy (more than he needs) - the 70-year-old man is consuming more energy than he needs which is not good as this extra energy will be converted to fat (1 mark) and could lead to obesity as he is less active because of his broken hip (additional mark for developed answer) - the 70-year-old man is consuming more energy than he needs which is not good as this extra energy will be converted to fat (1 mark) and could lead to coronary heart disease (additional mark for developed answer) Protein (less than he needs) - the 70-year-old man is consuming less protein than he needs this is bad as he won't get enough protein for repair of his body cells and tissues as he is elderly he wounds from his operation may take longer to repair - the 70 years old man is consuming less protein than he needs this is good as there is no risk of excess protein being stored as body fat/not contributing to weight gain (1 mark) as he is elderly is less active less likely to suffer from obesity (additional mark for developed answer) Vitamin D (less then he needs) - the 70-year-old man is getting less vitamin D than required as he is recovering from a broken hip this is bad as vitamin D is required to absorb calcium which he needs as he needs calcium to repair his broken hip Calcium (more then he needs) - the 70-year-old man is getting more calcium than he needs which is good because he needs calcium to add strength and hardness to his bones as they heal (1 mark)	6	Candidates should make a number of evaluative comments related to the context of the question. Candidates may provide a number of straightforward evaluations or a smaller number of developed evaluations, or a combination of these. Up to the mark allocation for this question: Candidates can be credited in a number of ways up to a maximum of 6 marks. Candidates should make comments on the suitability of aspects of the day's meals related to the individual in the case study. a maximum of 4 marks may be awarded for accurate evaluative comments relating to four different aspects of the day's meals related to the individual in the case study a maximum of 2 marks may be awarded for developed evaluations linked to the same identified aspect of the day's meals For example, candidates could provide either: four evaluative comments each linked to a different aspect of the man's meals (maximum 4 marks) or two evaluative comments linked to each of three different aspects of the man's meals or

Question			Expected response(s)	Max mark	Additional guidance
			Sodium (more than he needs) - the 70-year-old man is having more sodium than he needs which is bad as it may increase his blood pressure (1 mark) which could lead to a stroke/CHD (additional mark for developed answer) Fibre (less than he needs) - the 70-year-old man is having less fibre than he needs which is bad as he may suffer from constipation (1 mark) which could lead to bowel cancer (additional mark for developed point)		two evaluative comments each linked to two different aspects of the man's meals plus two evaluative comments linked to two further aspects of the man's meals (up to a maximum of 6 marks)
	(b)		Possible candidate responses could include: - gives the man time to compare prices so he can ensure he is getting the best deal - delivery charges are added so may add to the cost of his shopping so may limit his food choice - minimum spend may lead to him buying items he does not need so may mean he has to buy more processed foods/afford less fresh foods - may not have a computer/not good with technology so may find it difficult to buy what he needs - may give the man substitute foods so he might discover new foods Or any other valid response.	2	Candidates should make the relationship between points clear eg by giving accurate, relevant points showing the impact online shopping may have on the man's choice of food. 1 mark should be given for each correct explanation (up to a maximum of 2 marks)
	(c)		Possible candidate responses could include: - eggs bind ingredients together preventing them from falling apart - when eggs are whisked, (aeration) air is trapped/light fluffy texture - when eggs are heated, they set (coagulate), helping them to firm up/maintain its shape - eggs give products a golden-brown (glazing) colour improving their appearance - eggs add richness and improve the overall flavour - eggs add moisture helping to give a soft texture/prevent them from being dry Or any other accurate response.	2	Candidates should give a number of straightforward points linked to the context of the question. Candidates should describe the importance of each functional property of eggs in baked products. award a maximum of 1 mark for one correct description up to a maximum of 2 marks

Question			Expected response(s)	Max mark	Additional guidance
3.	(a)		Possible candidate responses could include: Change: • replace mince with lower fat mince or Quorn • replace cheddar cheese with low fat cheddar Current dietary advice met: • reduces fat content, so helps meet (current dietary) advice to eat less fat Change: • replace the white burger with wholemeal/granary Current dietary advice met: • increases amount of fibre, so helps meet advice to increase intake of fibre Change: • omit salt • replace salt with herbs or spices • use reduced salt ketchup Current dietary advice met: • this average intake of salt to reduce to 6g per day reduces amount of salt so help meet advice to eat less salt Change: • add an appropriate vegetable (lettuce, tomato, avocado) • increase onion Current dietary advice met: • increases number of vegetables, so helps meet advice of increasing vegetable intake	6	Candidates should define or give an account of changes which could be made to the ingredients. Candidates should show connections between changes made and current dietary advice. • award a maximum of 3 marks for relevant changes to ingredients And • award a maximum of 3 marks for explanations linked to different pieces of current dietary advice (up to a maximum of 6 marks)

Question			Expected response(s)	Max mark	Additional guidance
			Change: - change tomato sauce to low sugar tomato sauce Current dietary advice met: - decrease sugar so helps to meet advice of eat less sugar Or any other valid response.		
	(b)		Possible candidate responses could include: - cardboard is biodegradable/recyclable, this is good because this makes it an environmentally friendly packaging choice (1 mark) - cardboard can absorb grease and moisture from the cheeseburger. This is not good because this can make the packaging soggy/less appealing (1 mark) - cardboard is lightweight this makes it good for transporting/easy to carry (1 mark) - easy to print on/write on this is good because this makes it good for branding/identifying orders (1 mark) - cardboard does not retain heat well so it is not good for keeping cheeseburgers warm (for long periods) (1 mark) The customer may receive a cold product, reducing satisfaction (additional mark for developed answer) - the packaging can easily be damaged, which is not good because cheeseburger could fall out/be damaged/open to contamination - it is not water resistant, which is not good as the packaging would disintegrate, and the cheeseburger may fall out Or any other valid response.	2	Candidates should make a number of evaluative comments which make a judgement based on the information provided, related to using cardboard as a packaging material for a cheeseburger Award marks for each response that: - shows a clear understanding of a feature of cardboard packaging - includes an appropriate judgement on the suitability of this feature for the consumer - comments on the impact of this feature for carrying a cheeseburger - award 1 mark for each accurate evaluative comment - award a further mark for any evaluation that is developed

Question			Expected response(s)	Max mark	Additional guidance
	(c)		Possible candidate responses could include: The fridge is operating at 8 °C: - the fridge temperature is too warm so bacteria can multiply on the food causing food poisoning - the fridge is operating within the danger zone so, bacteria may multiply on the food causing food poisoning Burgers are cooked to a temperature of 56 °C: - the burgers are not being cooked long enough/to a high enough temperature therefore the bacteria in the centre will still be able to multiply causing food poisoning Or any other valid response.	2	Candidates can be credited up to a maximum of 2 marks. Candidates should make the relationship between points clear for example by explaining how the hazards could result in/cause food poisoning. 1 mark should be given for each correct response made up to a maximum of 2 marks in total a maximum of 2 marks may be awarded for the correct explanation of how the hazards could result in food poisoning (up to a maximum of 2 marks)

Question		Expected response(s)	Max mark	Additional guidance
4.	(a)	Possible candidate responses could include: Concept generation: - provides initial ideas for the new ready meal, 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 a ready meal that already exists Concept screening: - considers all the ideas for the ready meal some are taken forward and others are discarded, as they may not be viable - a specification for the ready meal may be written so help to develop the product Prototype production: - to allow improvements to be made to the ready meal product, so that it will sell better - to decide on the viability of the ready meal, so that it will sell/make a profit First production run: - to test the production line to see if the new ready meal can be made successfully in bulk/safely/to the same quality - to test the new ready meal is suitable for bulk production, so that changes can be made if there are issues Marketing plan: - decisions will be taken on how the ready meal will be promoted/advertised, so that sales are maximised - decisions will be taken on how the ready meal will be packaged so attract consumer attention - decisions will be taken on the positioning of the ready meal (for sale), so that it may sell more product/increase sales	4	Candidates should identify two steps in the product development process and explain the role of each in the development of a new ready meal product. 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 (up to a maximum of 4 marks)

Question			Expected response(s)	Max mark	Additional guidance
			Product launch: - the ready meal is promoted to the market so to maximise sales - allows the manufacturer to judge consumer response therefore amend aspects of the, so increase sales Or any other valid response.		
	(b)		Possible candidate responses could include: - consumers believe they taste better which is good as they may be more likely to choose theirs over competitors (1 mark) so make more profit for the manufacturer (additional mark for developed answer) - organic ingredients are free from chemicals which is good as it is better for their health and so may make it appeal to ethical consumers - they tend to be more expensive which is bad because it may make it too expensive for some people to purchase - they don't have as long a shelf life which is bad because it may result in wasted food/not lasting as long - ingredients are more expensive so makes overall product more expensive for manufacturer (1 mark) meaning consumers on a budget will be put off as not able to afford it (additional mark for developed answer) Or any other valid response.	3	Candidates should make a number of evaluative comments which make a judgement based on the information provided, related to organic ingredients. Award marks for each response that: - shows a clear understanding of a feature of Organic ingredients - includes an appropriate judgement on the suitability of organic ingredients - comments on the impact of this feature for the ready meal - award 1 mark for each accurate evaluative comment - award a further mark for any evaluation that is developed (up to a maximum of 3 marks)

Question		Expected response(s)	Max mark	Additional guidance
	(c)	Possible candidate responses could include: Introductory low prices: - this may be effective as before they try, consumers will think that they are saving money therefore increasing sales - as it is a low price, so customers may choose to purchase it - the price may increase therefore they may not continue buying it Free sampling of foods: - you can try the product before purchase to see if you like it before you buy so encouraging repurchase - more likely to try new foods without buying so increasing their food choice - if you try and don't like it, you can therefore choose something else Or any other valid response.	2	Candidates should make the relationship between things clear, eg by showing connections of consumers' food choice. Candidates should explain one way in which introductory low prices affect a consumer's food choice. Candidates should explain one way in which free sampling affect a consumer's food choice award a maximum of 1 mark for an accurate explanation (up to a maximum of 2 marks)
	(d)	Possible candidate responses could include: - acts as an antioxidant/kills free radicals - helping to protect body cells from damage - healthy skin - healthy eyes - supports the immune system Or any other valid response.	1	Candidates should state one function of the nutrient Vitamin E. award 1 mark for a correct function of Vitamin E (up to a maximum of 1 mark)

Question		Expected response(s)	Max mark	Additional guidance
5.	(a)	Possible candidate responses could include: Dental Caries: • a diet low in sugar – prevents bacteria growing which attack teeth • a diet high in calcium/Vitamin D – as will help teeth to harden/stronger Anaemia: • eat foods rich in iron which is needed to make healthy red blood cells • eat foods such as red meat, green leafy vegetables, or fortified cereals which are high in iron so makes red blood cells • include vitamin C-rich foods (like oranges or peppers) because Vitamin C helps the body absorb iron which makes red blood cells • avoid foods high in fibre as high fibre foods stop iron absorption therefore preventing red blood cell production Coronary Heart Disease (CHD): • reduce intake of saturated fats (such as butter, processed meats, and pastries) as this helps lower blood cholesterol levels • eat more fruit, vegetables, and wholegrains as these contain fibre which helps lower cholesterol • take part in regular physical activity because exercise helps maintain a healthy weight • limit salt intake as too much salt can raise blood pressure, increasing the risk of CHD Or any other valid response.	3	Candidates should make a number of points that make the issue plain or clear, eg be showing connections between the factor given and the dietary disease. Candidates should explain three dietary factors which may prevent dental caries, anaemia and coronary heart disease. A maximum of 1 mark for each relevant dietary factor. (up to a maximum of 3 marks)

Question		Expected response(s)	Max mark	Additional guidance
	(b)	Possible candidate responses could include: Rule: the testing area should be quiet/neutral space/free from strong smells Explanation: this helps testers concentrate and prevents other factors from affecting their judgement Rule: testers should rinse their mouths between samples Explanation: this removes any lingering flavours, so each product is judged fairly on its own taste Rule: each sample should be coded with a random number rather than the product name Explanation: this avoids bias and ensures testers judge the sample purely on its sensory qualities Rule: the testing environment should have good lighting Explanation: this allows testers to accurately assess the colour and appearance of each sample Rule: testers should not talk to each other during the test Explanation: this stops them from influencing each other's opinions and keeps the results reliable Rule: all samples should be the same size, temperature, and served in identical containers Explanation: this ensures the test is fair and that results are not influenced by differences in how the samples are presented Or any other valid response.	4	Candidates should identify two controls in sensory testing and explain the importance of each. Award 1 mark for each correct response. - award a maximum of 2 marks for correctly identified controls used in sensory testing - award a maximum of 2 further marks for valid explanations relating to each of each control (up to a maximum of 4 marks)

Question			Expected response(s)	Max mark	Additional guidance
	(c)	(i)	Possible candidate responses could include: - recycling - recyclable Or any other valid response.	1	Candidates should state the name of the symbol. award 1 mark for correctly identifying the symbol (up to a maximum of 1 mark)
		(ii)	Possible candidate responses could include: - people may be more inclined to buy product because they know the packaging is recycled - environmentally friendly consumers are more likely to choose product because they are helping the planet Or any other valid response.	1	Candidates can be credited up to a maximum of 1 mark . Candidates should provide an accurate explanation why packaging is good for consumers. 1 mark should be given for each correct explanation (up to a maximum of 1 mark)
	(d)		Possible candidate responses could include: - seize goods for safety reasons - check to ensure age restricted products are being sold correctly - check weighing and measuring equipment - advise consumers about their legal rights - check trade descriptions and pricing - check labelling is accurate Or any other valid response.	1	Candidates should define or give an accurate point which relates to trading standards protecting the consumer. award 1 mark for each relevant way trading standards protect the consumer (up to a maximum of 2 marks)

Question		Expected response(s)	Max mark	Additional guidance
6.	(a)	Possible candidate responses could include: Name of product: - consumers know exactly what the food is so they can take account of likes and dislikes Manufacturer's name and address: - may be needed in case of complaint so the consumer knows who to contact Weight or volume: - helps the consumer to work out value for money and compare products to get the best deal Storage instructions: - tells the consumer how and where to store food so ensuring it is safe to eat - tells the consumer how and where to store food so ensuring it is at its best so preventing food poisoning Cooking or preparation instructions (eg, heating up ready meals): - to ensure foods are correctly prepared and cooked by the consumer to prevent food poisoning List of ingredients: - may be allergic to the foods so know when to avoid and purchase something different Date marking: (i) Use By - let consumer know when the product should be eaten by to reduce risk of food poisoning OR (ii) Best Before - let the consumer know when to eat the product so it is at its best quality Or any other valid response.	4	Candidates should identify two points of information which by law should be on a food label. Candidates should make the relationship between things clear, for example by showing connections between the information on the food label and the importance to the consumer. - award 1 mark for each correctly identified point of information (up to a maximum of 2 marks) - award a maximum of 1 mark for each accurate explanation (up to a maximum of 2 marks) (up to a maximum of 4 marks)

Question		Expected response(s)	Max mark	Additional guidance
	(b)	Possible candidate responses could include: - foods produced this way can be cheaper so consumers may buy more therefore increasing food choice - animal welfare is a concern due to conditions animals are kept in therefore some consumers may choose not to purchase therefore limiting choice - diseases are easily spread through the animals as they are so cramped into the cage's food supplies may be affected therefore limiting food choice Or any other valid response.	2	Candidates should make the relationship between things clear, for example by showing connections between feature of factory farming and effect on consumer food choice. Candidates should explain two ways factory farming can influence consumer food choice. award 1 mark for each relevant explanation of an influence on consumer food choice (up to a maximum of 2 marks)
	(c)	Possible candidate responses include: Advantages: - UHT food products do not require refrigeration if unopened - UHT products have an extended shelf life if unopened - UHT can be bought in bulk - UHT products can be cheaper Disadvantages: - once opened, needs to be refrigerated - may not have a good flavour - limited choice Or any other valid response.	3	Candidates should describe relevant points which explain the advantages/disadvantages to the consumer of using UHT products. - award a maximum of 1 mark for each advantage (up to a maximum of 2 marks) - award a maximum of 1 mark for a disadvantage (up to a maximum of 1 mark)

Question			Expected response(s)	Max mark	Additional guidance
	(d)		Possible candidate responses include: • rehydrate after exercise • control body temperature/helps to cool body down by sweating • lubricates joints • water helps to flush out toxins and other waste products • helps to prevent issues such as constipation Or any other valid response.	1	Candidates should give a reason why water is important in the diet. • award a maximum of 1 mark for a reason (up to a maximum of 1 mark)

[END OF MARKING INSTRUCTIONS]