



NCFE Level 1/2 Technical Award in Food and Cookery (603/7014/2)

Examined assessment

Paper number: Past paper
Date: Summer 2025

Mark Scheme

v1.0 Post-Standardisation

This Mark Scheme has been written by the assessment writer and refined, alongside the relevant questions, by a panel of subject experts through the external assessment writing process and at standardisation meetings.

The purpose of this Mark Scheme is to give you:

- examples and criteria of the types of response expected from a learner
- information on how individual marks are to be awarded
- the allocated assessment objectives (AOs) and total mark for each question.

Marking guidelines

General guidelines

You must apply the following marking guidelines to all marking undertaken throughout the marking period. This is to ensure fairness to all learners, who must receive the same treatment. You must mark the first learner in exactly the same way as you mark the last.

- The Mark Scheme must be referred to throughout the marking period and applied consistently. Do not change your approach to marking after standardisation.
- Reward learners positively giving credit for what they have shown, rather than what they might have omitted.
- Utilise the whole mark range and always award full marks when the response merits them.
- Be prepared to award zero marks if the learner's response has no creditworthy material.
- Do not credit irrelevant material that does not answer the question, no matter how impressive the response might be.
- If you are in any doubt about the application of the Mark Scheme, you must consult with your team leader or the chief examiner.

Guidelines for using extended-response marking grids

Extended-response marking grids have been designed to award a learner's response holistically and should follow a best-fit approach. The grids are broken down into bands, with each band having an associated descriptor indicating the performance at that band. You should determine the band before determining the mark.

When determining a band, you should use a bottom-up approach. If the response meets all the descriptors in the lowest band, you should move to the next one, and so on, until the response matches the band descriptor. Remember to look at the overall quality of the response and reward learners positively, rather than focusing on small omissions. If the response covers aspects at different bands, you should use a best-fit approach at this stage and use the available marks within the band to credit the response appropriately.

When determining a mark, your decision should be based on the quality of the response in relation to the descriptors. You must also consider the relative weightings of the AOs, so as not to over / under credit a response. Standardisation materials, marked by the chief examiner, will help you with determining a mark. You will be able to compare exemplar learner responses to live responses, to decide if they are the same, better or worse.

You are reminded that the indicative content provided under the marking grid is there as a guide, and therefore you must credit any other suitable responses a learner may produce. It is not a requirement that learners must cover all of the indicative content to be awarded full marks.

Assessment objectives (AOs)

This unit requires learners to:

AO1	Recall knowledge and show understanding. The emphasis here is for learners to recall and communicate the fundamental elements of knowledge and understanding.
AO2	Apply knowledge and understanding. The emphasis here is for learners to apply their knowledge and understanding to real-world contexts and novel situations.
AO3	Analyse and evaluate knowledge and understanding. The emphasis here is for learners to develop analytical thinking skills to make reasoned judgements and reach conclusions.

The weightings of each AO can be found in the Qualification Specification.

Q	Mark scheme	Total marks
---	-------------	-------------

Section A

Total for this section: 16 marks

1	Which one of the following is a high risk food? A Bread B Pasta C Potato D Rice Answer: D – Rice	1 AO1=1
2	Which one of the following correctly defines fish farming? A Catching large numbers of fish using nets B Catching small numbers of fish using rods and lines C Managing fish populations to prevent overfishing D Raising fish in controlled environments for food production Answer: D – Raising fish in controlled environments for food production	1 AO1=1
3	Which one of the following is an advantage of manufactured food? A High sugar content B Includes additional packaging C Longer shelf life D Lower environmental impact Answer: C – Longer shelf life	1 AO1=1
4	Name the independent UK government department responsible for protecting public health in relation to food. Award one mark for the correct name: • The Food Standards Agency (FSA) (1).	1 AO1=1

5	Give three features of organically farmed crops. Award one mark for each feature, up to a maximum of three marks: • Artificial fertilisers are not used (1). • Chemical pesticides are not used (1). • Chemical herbicides are not used (1). • It is better for the environment (1). • They have not been genetically modified (1). Accept any other suitable response.	3 AO1=3
---	--	-------------------------------------

6	Martha likes to eat dehydrated meat like beef jerky and dried fruits such as figs. Explain one way that dehydrating the beef and figs makes them less healthy options. Award one mark for each explanation point, up to a maximum of two marks: • The dehydrated beef will have a higher salt content (1) as it is added as a preservative (1). • Dehydrated beef will have a higher salt content (1) as it can become more concentrated as the moisture is removed (1). • The dehydrated figs will have a higher sugar content (1) as the moisture removed will make the sugar more concentrated (1). • The figs will have increased calorie density (compared to the fresh, hydrated versions) (1) due to the higher sugar content in the figs with removed moisture (1). • The nutritional content of the figs will be negatively affected with the loss of water-soluble vitamins (1) so this could be classed as more empty calories (1). Accept any other suitable response.	2 AO2=2
---	---	-------------------------------------

7 (a)	There has been a report of a food poisoning outbreak. This was caused by chicken sandwiches prepared and sold by a chain of supermarkets. Explain how two named types of food poisoning bacteria may have caused the outbreak. Award one mark for each type of bacteria and one mark for each explanation, up to a maximum of four marks: • Salmonella (1), as the chicken in the sandwiches may not have been cooked thoroughly enough to kill the bacteria (1). • E. Coli (1) can be found in raw and cooked meat if not stored or cooked thoroughly (1). • Staphylococcus (1) can transfer from humans with poor personal hygiene / could have been transferred to the chicken sandwiches during production (1). • Bacillus Cereus (1) can be transferred from humans with poor personal hygiene / could have been transferred to the chicken sandwiches during production / can be found in chicken if not stored or cooked thoroughly (1). • Campylobacter (1) can be found in chicken products if cross contamination has occurred (1). Accept any other suitable response.	4 AO2=4
7 (b)	Recommend how the supermarket chain can prevent further food poisoning outbreaks from their sandwich production line by controlling one of the following: • storage • preparation • cooking conditions. Award one mark for each recommendation point, up to a maximum of three marks: Storage: • Chicken is a high risk food and needs to be kept out of the danger zone / 5 °C to 63 °C, to prevent growth of harmful bacteria (1). The staff need to regularly check the temperature of their chillers and freezers (1). This is important during the transport of high risk foods so should be recorded when being transported from the manufacturer to the supermarkets (1).	3 AO3=3

	• Raw chicken should be refrigerated at the correct temperature / stored between 0 °C and 5 °C as this will slow down growth of food poisoning bacteria (1). Staff should be checking the temperature and records on arrival to the production line (1). If it arrives at the sandwich production line outside of this range it should be rejected (1). • If the supermarket is freezing the raw chicken it should be kept below –18 °C to stop bacteria growing (1). It should be defrosted slowly to ensure even thawing and limited bacterial growth (1) and this should be done in a cool environment below 5 °C to ensure bacterial growth is slow (1). Preparation: • Raw and cooked chicken needs to be stored and prepared in different areas to prevent the risk of cross contamination (1) and staff should also ensure they use colour-coded equipment like cutting boards and knives (1) and do not handle raw and then cooked chicken (1). • The sandwiches could be prepared in a chilled production area (1) and when packaged, should be stored below 5 °C (1). They should remain chilled during transport to the supermarkets (1) and stored correctly when they arrive and are put on the shelves for sale (1). Cooking conditions: • When the chicken is cooked by the supermarket it should be cooked to at least 75 °C for at least 2 minutes to ensure it is safe to eat (1). They can check this by using a food probe (1) which needs to be at least 75 °C in the thickest part of the chicken to ensure the heat has penetrated the meat fully (1). • After preparing and cooking the chicken, it should be cooled rapidly to below 5 °C and refrigerated within 90 minutes of cooking (1) preferably using a blast chiller to reduce the core temperature quickly (1) and after this point the chicken should not be allowed to enter the danger zone again during production (1). Accept any other suitable response.	
--	--	--

Q	Mark scheme	Total marks
---	-------------	-------------

Section B

Total for this section: 20 marks

8	Which one of the following techniques helps to develop gluten in bread making? A Baking B Kneading C Proving D Rubbing-in Answer: B – Kneading	1 AO1=1
9	Which one of the following would be altered by using cornflour in a white sauce? A Colour B Smell C Taste D Texture Answer: D – Texture	1 AO1=1
10	Which one of the following best describes dovetailing when cooking many dishes? A Make the dishes one at a time B Overlap the steps from each recipe C Prepare all of the vegetables first D Put equipment in the correct order Answer: B – Overlap the steps from each recipe	1 AO1=1

11	Give one example of a suitable garnish for a bowl of vegetable soup. Award one mark for giving a correct example: • swirl of cream / crème fraiche / yoghurt (1) • chopped herbs (1) • vegetable crisps (1) • croutons (1) • toasted almonds / nuts / seeds (1). Accept any other suitable response.	1 AO2=1
12	Andrew is making a vegetable bake. He is thinking about leaving the skins on the root vegetables instead of peeling them. Explain one benefit of leaving the skins on the root vegetables in this recipe. Award one mark for each explanation point, up to a maximum of two marks: Reducing waste: • Scrubbing can avoid extra food waste (1). Peeling might remove too much skin and flesh meaning Andrew needs to use more vegetables and this will increase the costs of the meal (1). Nutritional benefits: • Not peeling root vegetables will keep the nutrients that are stored in the skin, (1) such as vitamin C and fibre (1). Sensory reasons: • Not peeling can improve the taste of the vegetables (1). For example, the skin of sweet potatoes and new potatoes can add flavour (1). • Not peeling adds to the texture of a dish, (1) such as with crispy skins on a jacket potato (1). Time efficiency: • Scrubbing vegetables and potatoes can take less time than peeling (1) meaning Andrew can prepare and cook the dish more quickly (1). Accept any other suitable response.	2 AO2=2

13 (a)	Budget is one area of recipe amendment. State two other areas of recipe amendments. Award one mark for each correct point, up to a maximum of two marks: • factors affecting food choice: ○ social (1) ○ environmental (1) ○ seasonality (1) ○ individual characteristics of ingredients and altered characteristics when paired with other ingredients (1) • food-related health conditions (1) • occasion (1) • sensory factors (1). Do not accept budget. Accept any other suitable response.	2 AO1=2
13 (b)	Daniel is cooking dinner for some friends and he wants to amend the family recipe shown below. Explain how Daniel could consider his budget when amending the chilli beef recipe. Award one mark for each explanation point, up to a maximum of two marks: • Some of the main ingredients are expensive and could be swapped for cheaper alternatives (1) such as using minced beef instead of braising beef / using more plant-based sources of protein / bulking the recipe out with cheaper vegetables / using supermarket own brands instead of known brand names which are cheaper (1).	2 AO2=2

	• Daniel could choose to change some ingredients in his chilli beef recipe for seasonal ones (1) which will make them cheaper to buy as they are grown and harvested in the UK and do not have to be transported from other countries (1). • Daniel could use spice mix instead of individual herbs and spices (1) as buying whole jars of herbs and spices he may not use again can be costly and create additional food waste (1). Accept any other suitable response.	
--	---	--

14 (a)	Charlotte is a wedding planner and is planning the menu choices for a client. She knows they want a three-course meal and that two of the adult guests have food-related health conditions. State two other requirements Charlotte will need to discuss with the client. Award one mark for each correct requirement, up to a maximum of two marks: • theme of menu (1) • number of dishes required (1) • number of people / age being catered for (1) • budget (1) • nutritional content (1) • range of preparation, cooking methods and techniques (1) • factors affecting food choice: ○ style of service (meal) (1) ○ environmental and ethical factors (1) ○ time of year (1) • sensory features of chosen dishes (1). Do not accept three-course meal. Do not accept food-related health conditions. Accept any other suitable response.	2 AO1=2
---------------	---	-------------------------------------

14 (b)	Suggest how Charlotte can meet the needs of the adult guests with food-related health conditions when planning the menu. Award one mark for each suggestion point, up to a maximum of two marks: - Charlotte needs to discuss appropriate dishes for the guests who may have food-related health conditions and assure the client that the dishes will be safe (1). They may also need to be served separately (1). - The client has specified there is more than one guest with a food-related health condition, so several options will be needed (1) for a starter, main course and dessert (1). - Charlotte will need to clarify the client's budget with them to be able to suggest appropriate affordable dishes and ingredients for guests who may have food-related health conditions (1). She may have a budget per person to work within so if she needs to buy more expensive products it will affect the costs (1). Accept any other suitable response.	2 AO3=2
15 (a)	One factor that could cause differences in the outcome of a recipe is the accuracy of preparation and cooking skills. Identify two other factors that could cause differences in the outcome of a recipe. Award one mark for each correct factor, up to a maximum of two marks: - time, including: - preparation / cooking time (1) - waste (1) - consistency of practice (1) - ability / skills of staff to replicate a recipe over time (1) - cost (1). Do not accept accuracy of preparation or cooking skills. Accept any other suitable response.	2 AO1=2

15 (b)	Clara owns a tearoom that is well known for its scones. Since new kitchen staff started, customers have begun to complain about the scones being different each time they visit. Explain one way in which the accuracy of the preparation and cooking skills of the new kitchen staff could cause differences in the scones. Award one mark for each explanation point, up to a maximum of two marks: • The rubbing-in stage of the recipe may have been missed (1) meaning the scones could be tough / not be crumbly (1). • The staff may not have weighed ingredients accurately (1) and too much liquid / flour / fat will affect the ratio of ingredients (1). • If cooking temperatures / times are different each time the scones are made (1) they will either be under- or over-cooked (1). • The staff may not have accurately recorded the time for mixing the ingredients (1) meaning the dough is over- or under-mixed (1). • The staff may not have selected the correct ingredients (1) which will affect the sensory attributes of the scones (1). Accept any other suitable response.	2 AO2=2
--------	---	-------------------------------------

15 (c)	One customer complaint was that the scones were tough and chewy. The staff use the rubbing-in method to make the scones with the ingredients below. Ingredients 225 g self-raising flour 1 level teaspoon baking powder 50 g butter 40 g caster sugar 1 egg 3 to 4 tablespoons milk Suggest why one part of the process has made the scones tough and chewy. Award one mark for each suggestion point, up to a maximum of two marks: • The fat may not have been cold enough to rub into the flour and coat the surface enough (1) meaning when the liquid was added, gluten was allowed to develop during the handling and shaping of the scones (1). • The staff may have added warm liquid to the scone mixture (1), melting the fat and causing the development of gluten when the dough is handled (1). • The kitchen staff could have added too much liquid to the scones (1) leading to needing to mix more and add additional flour, spoiling the ratio of fat to flour (1). • The dough may have been made too far in advance causing the raising agents to release the CO₂ (1), meaning the scones do not rise properly in the oven (1). • The kitchen staff could have overhandled the dough / rolled it out too many times (1) leading to over-development of the gluten (1). Accept any other suitable response.	2 AO3=2
--------	---	---

Q	Mark scheme	Total marks
---	-------------	-------------

Section C

Total for this section: 26 marks

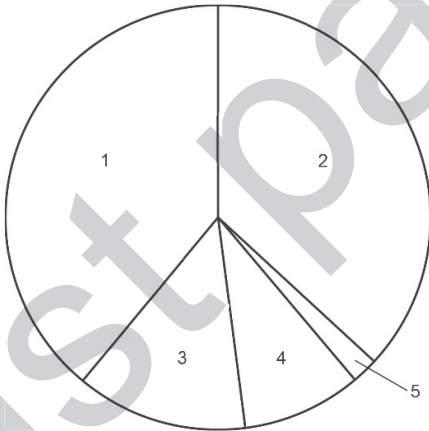
16	Which one of the following foods should a person with coeliac disease avoid? A Bread B Milk C Rice D Sugar Answer: A – Bread	1 AO1=1
17	Which one of the following means the maximum number of calories and nutrients to be consumed on an average day? A Balanced amount B Guided amount C Reference intake D Relative intake Answer: C – Reference intake	1 AO1=1
18	Which one of the following is a natural source of omega 3? A Bananas B Oily fish C Poultry D White bread Answer: B – Oily fish	1 AO1=1
19	State one economic factor that can affect food choice. Award one mark for stating a correct factor: • availability (1) • variety (1) • choice of brand (1) • income (1) • nutritional composition (1). Accept any other suitable response.	1 AO1=1

20	State the meaning of red and amber on the traffic light system used on food labels. Award one mark for each correct meaning, up to a maximum of two marks: • (Red) – high amounts present (1) • (Amber) – medium amounts present (1). Accept any other suitable response.	2 AO1=2
-----------	---	-------------------------------------

21 (a)	Identify two functions of calcium in children's diets. Award one mark for each correct function, up to a maximum of two marks: • to develop strong bones (1) • to develop strong teeth (1) • to help muscles / nerves function correctly (1) • works with vitamin D, phosphorus and vitamin C (1) • to help blood clot properly (1) • to prevent rickets (1) • to prevent osteoporosis (1). Accept any other suitable response.	2 AO1=2
---------------	--	-------------------------------------

21 (b)	Kim works in the kitchen of a children's hospital and is responsible for planning meals. She needs to make sure the food provided is rich in calcium. Explain one way Kim can provide calcium in the meals she plans for the children. Award one mark for each explanation point, up to a maximum of two marks: • Kim should use milk in cooked dishes such as milk-based puddings like custard (1) which children enjoy and are more likely to eat (1). • Kim should provide yoghurt in her meal planning and cooking (1) and it can be offered with all meals as it is an ideal and popular pudding for children (1). • Kim should put grated cheese in and on cooked dishes (1) which will make things look more appealing for children (1). • Kim should provide oily fish such as salmon in her meal planning (1). Even though children may not like fish, it can be hidden amongst other tasty ingredients like cheese (1).	2 AO2=2
---------------	---	-------------------------------------

	- Nuts and seeds provide calcium but Kim needs to avoid foods that can cause allergic reactions in children so needs to ensure she uses them safely (1). Children might enjoy the texture of nuts and seeds on top of desserts (1). - Kim could include green vegetables such as broccoli and cabbage (1) by adding them to casseroles and pasta bakes where children cannot see them as they may be put off (1). - Milk alternatives such as soya are fortified with calcium (1) and can be included in the menu planning for children who are lactose intolerant (1). - Kim could use bread with calcium-rich / fortified flour for the children's meals (1) and adding breadcrumbs to the top of cottage pie or fish pie will make them look appealing to children and give them a crunchy topping (1). Accept any other suitable response.	
--	---	--

22 (a)	The Eatwell Guide is represented in the image below.  Name the two smallest food groups shown in the image of the Eatwell Guide. Award one mark for each correct food group, up to a maximum of two marks: (4) – Dairy and alternatives (1) (5) – Oils and fats / spreads (1). Accept any other suitable wording in response but <u>do not</u> accept reverse order.	2 AO1=2
---------------	---	-------------------------------------

22 (b)	Explain how the fibre provided by group 1 in the image of the Eatwell Guide can contribute to a healthy diet for an adult. Award one mark for each explanation point, up to a maximum of two marks: • Fruit and vegetables should represent over a third of the diet so will provide bulk to move the food through the digestive system (1). This will make a person feel fuller and will prevent constipation / diverticular disease (1). • Leaving the skins on carrots, for example, provides both soluble and insoluble fibre (1) which helps to slow digestion / improves gut health / feeds gut bacteria (1). • The fibre in the flesh and skins of fibrous pears can slow the release of energy and helps control hunger (1). This steady energy release helps manage blood sugar levels effectively / can help manage type 2 diabetes (1). Accept any other suitable response.	2 AO2=2
23 (a)	Billy has recently been diagnosed with coronary heart disease (CHD). He often eats savoury pastries and pre-packaged desserts. State two ways in which Billy's food choices could have contributed to him developing CHD. Award one mark for each correct reason, up to a maximum of two marks: • Billy's food choices are high in saturated fat / sugar / salt (1) • Billy's food choices are high in calories (1). Accept any other suitable response.	2 AO2=2

23 (b)	Recommend one change to Billy's diet that could improve his health now he has been diagnosed with CHD. Award one mark for each recommendation point, up to a maximum of two marks: • Billy could limit or exclude the amount of processed savoury food he eats which would reduce the amount of saturated fat in his diet (1) and prevent the blockage or narrowing of the blood vessels in the heart (1). • Billy could limit processed desserts high in sugar which, if eaten in excess, will be converted to fat by the body (1) which can contribute to the blockage of or narrowing of the blood vessels in the heart (1). • Billy could limit or exclude processed food to reduce his salt intake (1) which can contribute to CHD as it can raise blood pressure (1). • Eating too many calories can contribute to CHD by causing weight gain / obesity (1) due to storing the excess as body fat (1). Accept any other suitable response.	2 AO3=2
24 (a)	Ellie lives in a rural area and relies on the local village shop which is 3 miles from her house. Give two reasons why Ellie's location and access to shops may affect her food choices. Award one mark for each correct reason, up to a maximum of two marks: • The village shop may not stock a wide range of fresh ingredients regularly (1). • The village shop is likely to be more expensive than a supermarket (1). • She lives 3 miles from the nearest shop and is not likely to be able to walk there and back / be able to carry heavy shopping all that way (1). Accept any other suitable response.	2 AO2=2

24 (b)	Discuss one way Ellie's food choices would be different if she lived in a town or city. Award one mark for each discussion point, up to a maximum of two marks: • Ellie would have access to a larger number of shops and can shop around for her foods in specialist bakeries, butchers and fruit shops (1). She could also shop around for bargains and not have to pay high prices for fresh foods as she would in her local rural shop (1). • Shops in towns and cities will receive regular deliveries of fresh fruit, vegetables, meat and fish for her to use in her meals (1), unlike the village shop which may only receive weekly deliveries due to lack of storage space (1). • Ellie may be closer to large supermarkets where she can take advantage of their discounting and ability to bulk buy (1) and living closer means she would not have to travel longer distances with heavy shopping (1). • Ellie can visit shops more regularly meaning she does not need to stock up on food / would not need to carry large amounts back to her home (1). She will not need to stock her freezer like she would if she only went to bigger shops once every week or two (1). • Ellie can access a wider selection of shops for a greater choice of different foods, like multicultural foods, enabling her to vary her diet (1), whereas the village shop will just stock the basic everyday food items (1). • Ellie will be nearer to fast food outlets and takeaways meaning she has more choice of ready-made food without having to cook it herself (1). She would not have access to takeaways in a rural area (1). Accept any other suitable response.	2 AO3=2
--------	--	-------------------------------------

25 (a)	Laura's doctor has advised her she is at risk of developing type 2 diabetes. The table below shows her eating habits over two days. <table border="1" data-bbox="431 352 1209 1037"> <thead> <tr> <th></th><th>Day 1</th><th>Day 2</th></tr> </thead> <tbody> <tr> <td>Breakfast</td><td>2 croissants with butter and jam</td><td>bacon sandwich with white bread</td></tr> <tr> <td>Lunch</td><td>sausage sandwich in white bread bun</td><td>fish and chips</td></tr> <tr> <td>Dinner</td><td>takeaway barbecue pizza and chips</td><td>sweet and sour chicken and white rice</td></tr> <tr> <td>Snacks</td><td>a packet of sweets 2 chocolate biscuits an apple</td><td>a packet of chocolate buttons 2 bags of crisps a jam doughnut</td></tr> <tr> <td>Drinks</td><td>3 cans of diet cola 2 cups of tea with whole milk and 2 sugars</td><td>3 cups of coffee with whole milk and 2 sugars</td></tr> </tbody> </table> Describe one way in which Laura's diet may affect her weight and increase her risk of developing type 2 diabetes. Award one mark for each description point, up to a maximum of two marks: • Laura gets too much sugar from cakes and biscuits and in her coffee and tea (1) which is leading to her gaining excess weight (1). • She has too much fat / saturated fat from crisps and processed meats like bacon and sausages (1) and the extra calories may lead to weight gain (1). • Laura eats too many simple carbohydrates (1): ○ which do not keep her feeling full for longer like wholemeal or wholegrain carbohydrates would (1) ○ which means she is likely to snack more often on less healthy, sugary snacks (1). Accept any other suitable response.		Day 1	Day 2	Breakfast	2 croissants with butter and jam	bacon sandwich with white bread	Lunch	sausage sandwich in white bread bun	fish and chips	Dinner	takeaway barbecue pizza and chips	sweet and sour chicken and white rice	Snacks	a packet of sweets 2 chocolate biscuits an apple	a packet of chocolate buttons 2 bags of crisps a jam doughnut	Drinks	3 cans of diet cola 2 cups of tea with whole milk and 2 sugars	3 cups of coffee with whole milk and 2 sugars	2 AO2=2
	Day 1	Day 2																		
Breakfast	2 croissants with butter and jam	bacon sandwich with white bread																		
Lunch	sausage sandwich in white bread bun	fish and chips																		
Dinner	takeaway barbecue pizza and chips	sweet and sour chicken and white rice																		
Snacks	a packet of sweets 2 chocolate biscuits an apple	a packet of chocolate buttons 2 bags of crisps a jam doughnut																		
Drinks	3 cans of diet cola 2 cups of tea with whole milk and 2 sugars	3 cups of coffee with whole milk and 2 sugars																		

25 (b)	Recommend one improvement Laura can make to her diet that will help her to lose weight and reduce the risk of developing type 2 diabetes. Award one mark for each recommendation point, up to a maximum of two marks: • Laura should reduce her sugar intake by cutting out the cakes, sweets and biscuits as this can be a contributing factor to developing type 2 diabetes (1). Instead, she should snack on fruit or sugar free versions to regulate her blood glucose (1). • Laura should add more vegetables into her sweet and sour chicken or salads into her sandwiches at lunch time (1) to provide vitamins, minerals and soluble and insoluble fibre / help her to feel full for longer / prevent her from snacking as much (1). • Laura should reduce her sugar intake and could use sweetener instead of sugar / use sugar-free jam / lower sugar alternatives to biscuits or chocolate (1) as this will reduce her overall calorie intake and help her to lose weight (1). • Laura could reduce her saturated fat intake by choosing chicken or turkey, leaner cuts of meat and less processed meat and use skimmed milk (1). She could try grilling sausages and bacon, for example, to reduce the number of fried foods which will help reduce her fat / calorie intake (1). • Laura could include more wholemeal bread in her sandwiches / brown rice with her sweet and sour chicken which will increase her dietary fibre intake (1) which will help prevent constipation and help to stabilise her blood sugar / snack less often (1). Accept any other suitable response.	2 AO3=2
--------	--	-------------------------------------

Q	Mark scheme	Total marks
---	-------------	-------------

Section D**Total for this section: 18 marks**

26	Leo is the manager of a care home for older people. Leo has produced the menu shown below. The menu needs to meet the nutritional needs of a female resident with limited mobility. <table border="1"> <thead> <tr> <th>Day</th><th>Food</th><th>Drink</th></tr> </thead> <tbody> <tr> <td>Monday</td><td>porridge made with water served with honey</td><td>cup of coffee with sugar</td></tr> <tr> <td>Tuesday</td><td>bacon sandwich with white bread</td><td>cup of tea with sugar</td></tr> <tr> <td>Wednesday</td><td>scrambled egg on wholemeal toast</td><td>glass of freshly squeezed orange juice cup of coffee with sugar</td></tr> <tr> <td>Thursday</td><td>rice cereal and white toast with butter and jam</td><td>hot chocolate</td></tr> <tr> <td>Friday</td><td>sausage sandwich with white bread</td><td>cup of tea with sugar</td></tr> <tr> <td>Saturday</td><td>pancakes with maple syrup</td><td>cup of coffee with sugar</td></tr> <tr> <td>Sunday</td><td>cooked breakfast</td><td>cup of tea with sugar</td></tr> </tbody> </table> Evaluate the suitability of Leo's menu for the older female with limited mobility. Recommend improvements to the menu using your knowledge of nutritional requirements to justify your response.	Day	Food	Drink	Monday	porridge made with water served with honey	cup of coffee with sugar	Tuesday	bacon sandwich with white bread	cup of tea with sugar	Wednesday	scrambled egg on wholemeal toast	glass of freshly squeezed orange juice cup of coffee with sugar	Thursday	rice cereal and white toast with butter and jam	hot chocolate	Friday	sausage sandwich with white bread	cup of tea with sugar	Saturday	pancakes with maple syrup	cup of coffee with sugar	Sunday	cooked breakfast	cup of tea with sugar	9 AO1=3 AO2=3 AO3=3
Day	Food	Drink																								
Monday	porridge made with water served with honey	cup of coffee with sugar																								
Tuesday	bacon sandwich with white bread	cup of tea with sugar																								
Wednesday	scrambled egg on wholemeal toast	glass of freshly squeezed orange juice cup of coffee with sugar																								
Thursday	rice cereal and white toast with butter and jam	hot chocolate																								
Friday	sausage sandwich with white bread	cup of tea with sugar																								
Saturday	pancakes with maple syrup	cup of coffee with sugar																								
Sunday	cooked breakfast	cup of tea with sugar																								

Band	Mark	Descriptor
3	7 to 9	AO3 – excellent analysis and evaluation of the menu and nutritional requirements for the resident that is comprehensive and highly relevant. Supported with excellent justifications for improvements to the menu which are comprehensive and highly detailed. AO2 – excellent application of knowledge and understanding of nutrients and the consequences of such a diet for the resident that is comprehensive and highly detailed and highly relevant to the question. AO1 – excellent recall of knowledge and understanding of the nutritional requirements for older people that is comprehensive. Subject-specific terminology is used consistently throughout.
2	4 to 6	AO3 – good analysis and evaluation of the menu and nutritional requirements for the resident that is detailed and mostly relevant. Supported with good justifications for improvements to the menu which are detailed. AO2 – good application of knowledge and understanding of the nutrients and the consequences of such a diet for the resident that is detailed and mostly relevant to the question. AO1 – good recall of knowledge and understanding of the nutritional requirements for older people that is mostly detailed. Subject-specific terminology is used, but not always consistently.

Band	Mark	Descriptor
1	1 to 3	AO3 – limited analysis and evaluation of the menu and nutritional requirements for the resident. Supported with limited justifications for improvements to the menu which have minimal detail and are mostly superficial. AO2 – limited application of knowledge and understanding of the nutrients and the consequences of such a diet for the resident that has minimal detail and is mostly superficial, with minimal relevance to the question. AO1 – limited recall of knowledge and understanding of key nutrients and nutritional requirements for older people that has minimal detail. Subject-specific terminology is often inappropriate, and a lack of understanding is evident.
	0	No rewardable material

Examiners are reminded that indicative content reflects content-related points that learners may make but is not an exhaustive list, nor is it a model answer. Learners may make all, some or none of the points included in the indicative content. Learners must be credited for any other appropriate response.

It is not a requirement that the learners formulate a response specifically against each AO as laid out in the indicative content.

Indicative content

AO1 – learners will recall knowledge and understanding of the nutritional requirements of older people, that may include reference to the following:

- calcium needed to prevent osteoporosis
- water and fibre needed to prevent constipation and bowel disorders
- iron needed to prevent anaemia
- vitamin C needed to aid the absorption of iron to prevent anaemia
- less fat and sugar as physical activity is reduced
- less salt to reduce blood pressure and the risk of heart disease.

AO2 – learners will apply knowledge and understanding of nutrients and the consequences of this resident's diet, that may include reference to the following:

- Rice cereal is served with milk to provide calcium which will reduce the risk of osteoporosis.
- Porridge is high in fibre which helps prevent constipation and bowel disorders.

	• Scrambled egg is served on wholemeal toast which has fibre to help prevent constipation and bowel disorders. • Scrambled egg and egg in the cooked breakfast has iron in the yolks which will help prevent anaemia / contains vitamin D to aid calcium absorption. • Orange juice is served with the eggs which has vitamin C and will help the resident absorb the iron in the egg yolks. • Bacon, sausage and butter in the sandwiches and cooked breakfast can be high in saturated fat which can lead to weight gain as the resident is less mobile. • Bacon, sausage and butter can be high in salt which can lead to high blood pressure and heart disease. • The resident who has poor mobility has sugar in all their hot drinks which will be converted to fat and can lead to weight gain, high blood pressure and heart disease. • The resident is served honey, jam and maple syrup in three of the breakfasts, which are high in sugar which will be converted to fat and can lead to weight gain, high blood pressure and heart disease. • Drinks are consumed regularly to help hydration and prevent constipation. • The calorie content should be monitored as the elderly person is not mobile. AO3 – learners will analyse and evaluate the menu and nutritional requirements for the resident, that may include reference to the following justifications for improvements to the menu: • The menu does not meet the nutritional requirements for the resident as there is too much salt, sugar and fat in the resident's menu. As the resident has limited mobility, she is at risk of gaining weight which can raise blood pressure and put her at greater risk of heart disease and stroke. The menu should include fewer processed meat products and more lean protein to ensure the salt and saturated fat intake is not too high. He should offer sweetener instead of sugar, honey and syrup to sweeten the foods to reduce the risk of the female resident becoming overweight due to the extra calories. • The menu partially meets the nutritional requirements for the resident as there is limited fibre in the menu and the white bread and toast could be replaced with wholemeal to help avoid constipation and bowel disorders. Wholemeal flour could also be used in the pancakes and instead of rice cereal, the resident could be given a high fibre breakfast cereal. • The menu does not meet the nutritional requirements for the resident as there is no fresh fruit served in the menu resulting in a lack of vitamin C to aid the absorption of iron. The fruit would also provide fibre in the resident's diet.	
--	---	--

	- The menu partially meets the nutritional requirements for the resident as it lacks sources of calcium which the resident needs to help prevent osteoporosis, although milk is served with cereal one day of seven and possibly in their hot drinks. The porridge could also be made with milk, and yoghurt could be included in the menu. - The menu does not meet the nutritional requirements for the resident as there is too much salt in the cooked breakfast and meat (bacon and sausage) sandwiches which can contribute to high blood pressure and stroke. He should offer less processed meat in the menu or lower salt / sodium versions. - The menu partially meets the nutritional requirements for the resident as there are some examples of sources of water in the drinks on the menu, however they often have added sugar. Sugar free drinks such as water and milk (which can also provide calcium) could replace or be served in addition to the hot drinks. They should ensure the resident is fully hydrated throughout the day. Accept any other suitable response.	
--	---	--

27	Martin has excluded all sources of fat in his diet and his doctor thinks that he may have a vitamin D deficiency. Evaluate the consequences for Martin of lacking fat and vitamin D in his diet. <table border="1"> <thead> <tr> <th>Band</th><th>Mark</th><th>Descriptor</th></tr> </thead> <tbody> <tr> <td>3</td><td>7 to 9</td><td> AO3 – excellent analysis and evaluation of nutrients and the consequences of nutrient imbalances that is comprehensive and highly relevant. Supported with excellent justifications that are comprehensive and highly detailed. AO2 – excellent application of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is comprehensive and highly detailed and highly relevant to the question. AO1 – excellent recall of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is comprehensive. Subject-specific terminology is used consistently throughout. </td></tr> </tbody> </table>	Band	Mark	Descriptor	3	7 to 9	AO3 – excellent analysis and evaluation of nutrients and the consequences of nutrient imbalances that is comprehensive and highly relevant. Supported with excellent justifications that are comprehensive and highly detailed. AO2 – excellent application of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is comprehensive and highly detailed and highly relevant to the question. AO1 – excellent recall of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is comprehensive. Subject-specific terminology is used consistently throughout.	9 AO1=3 AO2=3 AO3=3
Band	Mark	Descriptor						
3	7 to 9	AO3 – excellent analysis and evaluation of nutrients and the consequences of nutrient imbalances that is comprehensive and highly relevant. Supported with excellent justifications that are comprehensive and highly detailed. AO2 – excellent application of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is comprehensive and highly detailed and highly relevant to the question. AO1 – excellent recall of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is comprehensive. Subject-specific terminology is used consistently throughout.						

Band	Mark	Descriptor
2	4 to 6	AO3 – good analysis and evaluation of the importance of nutrients and the consequences of nutrient imbalances that is detailed and mostly relevant. Supported with good justifications that are mostly detailed and mostly relevant. AO2 – good application of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is detailed and mostly relevant to the question. AO1 – good recall of knowledge and understanding of nutrients and the consequences of nutrient imbalances that is mostly detailed. Subject-specific terminology is used, but not always consistently.
1	1 to 3	AO3 – limited analysis and evaluation of nutrients and the consequences of nutrient imbalances. Supported with limited justifications that have minimal detail and are mostly superficial. AO2 – limited application of knowledge and understanding of nutrients and the consequences of nutrient imbalances that has minimal detail and is mostly superficial, with minimal relevance to the question. AO1 – limited recall of knowledge and understanding of nutrients and the consequences of nutrient imbalances that has minimal detail. Subject-specific terminology is often inappropriate, and a lack of understanding is evident.
	0	No rewardable material

Examiners are reminded that indicative content reflects content-related points that learners may make but is not an exhaustive list, nor is it a model answer. Learners may make all, some or none of the points included in the indicative content. Learners must be credited for any other appropriate response.

It is not a requirement that the learners formulate a response specifically against each AO as laid out in the indicative content.

	Indicative content AO1 – learners will recall knowledge and understanding of macronutrient and micronutrient imbalances, that may include reference to the following: Functions of fat: • Fat is an energy source. • Fat is needed to form the structure of cells. • Fat is needed for insulation against the cold. • Fat protects vital organs such as the heart, liver and kidneys. • Fat is a good source of vitamin D. • Fat is a good source of essential fatty acids (omega 3 / omega 6). Functions of vitamin D: • absorbs calcium and phosphorous for healthy bones • improves muscle strength • acts as an antioxidant. AO2 – learners will apply knowledge and understanding of macronutrient and micronutrient imbalances, that may include reference to the following: Consequence of a lack of fat: • loss of weight • feel the cold • can lack essential fatty acids (omega 3 / omega 6) • unable to store fat-soluble vitamin D (and other fat-soluble vitamins). Lack of vitamin D: • poor calcium absorption leading to rickets and osteoporosis. AO3 – learners will analyse and evaluate macronutrient and micronutrient imbalances, that may include recommendations and justifications, as follows: • Martin is excluding an effective source of energy by cutting fat from his diet and as a result may lose weight and feel tired more quickly. A balanced diet allows Martin to consume 90 g fat per day, of which only 30 g should be from saturated fat. • If Martin does not consume enough fat, his diet will lack other fat-soluble vitamins and omega 3 and 6 which cannot be made by the body but are essential to human health so he needs to eat sources of unsaturated fat such as oily fish and nuts. • Lack of fat in Martin's diet will reduce insulation as fat is stored under the skin and he will feel the cold which may affect his mood especially in the winter months. He will have burned off his fat stores if he continues with this diet over a long period of time.	
--	---	--

	• Vitamin D is stored in fat in the body and if Martin is lacking fat, this may be why he is deficient in this vitamin; deficiency in vitamin D could result in Martin having poor absorption of calcium which could lead to him developing rickets or osteoporosis. • He needs to increase the amount of monounsaturated fats such as olive oil, nuts and oily fish, and polyunsaturated fats such as oily fish, seeds, walnuts and avocado, for example. A balanced diet allows Martin to consume 60 g of these types of fat per day. These fats can help to reduce the cholesterol in the body, reduce blood pressure and help cardiovascular health. • Martin will also need to consume the essential fatty acids omega 3 and 6 for normal body and biological functions, including brain, eyes and heart. He needs to include more green leafy veg, oils, soy beans, nuts and seeds, and oily fish in his diet. • Martin should not try to increase his fat intake by choosing saturated fat as this will increase his cholesterol and risk of CHD. He can do this by avoiding red meat, swapping foods such as whole milk for skimmed and choosing healthier cooking methods such as grilling instead of frying. • Martin needs to increase his intake of vitamin D by consuming more foods such as eggs, liver and oily fish and dairy products, while being aware that some dairy products will be high in saturated fat. Accept any other suitable response.	
--	---	--

Assessment objective (AO) grid

Section A

Question	AO1	AO2	AO3	Total
1	1			1
2	1			1
3	1			1
4	1			1
5	3			3
6		2		2
7 (a)		4		4
7 (b)			3	3
Total	7	6	3	16

Section B

Question	AO1	AO2	AO3	Total
8	1			1
9	1			1
10	1			1
11		1		1
12		2		2
13 (a)	2			2
13 (b)		2		2
14 (a)	2			2
14 (b)			2	2
15 (a)	2			2
15 (b)		2		2
15 (c)			2	2
Total	9	7	4	20

Section C

Question	AO1	AO2	AO3	Total
16	1			1
17	1			1
18	1			1
19	1			1
20	2			2
21 (a)	2			2
21 (b)		2		2
22 (a)	2			2
22 (b)		2		2
23 (a)		2		2
23 (b)			2	2
24 (a)		2		2
24 (b)			2	2
25 (a)		2		2
25 (b)			2	2
Total	10	10	6	26

Section D

Question	AO1	AO2	AO3	Total
26	3	3	3	9
27	3	3	3	9
Total	6	6	6	18