GCSE

FOOD PREPARATION AND NUTRITION 8585/W

Paper 1 Food Preparation and Nutrition

Mark scheme

June 2019

Version: 1.1 Final

1 9 6 G 8 5 8 5 / W / M S

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

Copyright © 2019 AQA and its licensors. All rights reserved.
AQA retains the copyright on all its publications. However, registered schools/colleges for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to schools/colleges to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Section A			
Question	**Answer Key**	**Assessment Objective**	**Total marks**
1.01	A – Pasta	AO1	1
1.02	D – Proteins	AO1	1
1.03	C – Nuts	AO1	1
1.04	D – Lactose	AO1	1
1.05	C – Removal of waste	AO1	1
1.06	A – Stir frying	AO1	1
1.07	D – Food security	AO1	1
1.08	B – Dextrinisation	AO1	1
1.09	B – Doughnuts	AO1	1
1.10	B – Plasticity	AO1	1
1.11	A – Raw chicken	AO1	1
1.12	D – Tomatoes	AO1	1
1.13	C – Cheese	AO1	1
1.14	C – Blue	AO1	1
1.15	C – Rickets	AO1	1

1.16	B – Air	AO1	1
1.17	B – Hollandaise sauce	AO1	1
1.18	C – Gelatinisation	AO1	1
1.19	D – control the metabolic rate	AO1	1
1.20	A – Proteins	AO1	1

Section B			
Qu	**Part**	**Marking guidance**	**Total marks**
02	**1**	**Give three different reasons why food is cooked.** **Marking guidance** This question is assessed against AO1 1 mark for each **different** response given from the list below **Award 1 mark for each different response given from the list below** **Food is cooked to:** • To make food safe to eat/prevent food poisoning • To destroy harmful microorganisms e.g. bacteria/pathogens/mould/yeasts and toxins • To develop and intensify flavours in foods/improve taste. (Flavour and taste can be credited but only one mark, not two) • To improve the sensory characteristics and organoleptic qualities. • To change the appearance of foods/add colour/look more appetising • To improve/change the texture. • To tenderise and soften fibres in meat, fish and vegetables. • To make foods less bulky and easier to eat and digest. • Improve the shelf life/keeping qualities/make food last longer. • Give variety in the diet • Improve the aroma/smell of food • Specific examples should be credited eg to allow pasta to gelatinise, to pasteurise milk to extend shelf life. • Any reason relating to nutrition needs to give an example e.g. steaming broccoli retains the water-soluble vitamins. **Any other valid responses should be credited.**	3

02	**2**	**State four different factors that influence food choice when planning a meal.** **Marking guidance** This question is assessed against AO1 **Award 1 mark for each valid point.** • Income/budget • Price/cost of ingredients. • Food availability • Seasonality (moved) – e.g. strawberries in June, BBQ in the summer. • Weather e.g. hot food on a cold day • Time of day • Time of year • Culinary skills • Lifestyles • Age • Gender • Number of people planning the meal for • Portion size • Physical activity level (PAL) (moved) • Time available to prepare/cook (moved) • Equipment/Facilities available • Allergies and food intolerances • Health issues which may affect food choice. • Dietary requirements • Nutritional value of ingredients. • Planning meals for a healthy balanced diet/Eatwell guide • Culinary traditions and beliefs (e.g. religious beliefs). • Ethical and moral beliefs and influence e.g. vegetarian, • Making environmentally friendly choices. • Advertising and marketing (e.g. food promotions such as 3 for 2, buy one get one free, buy one get one half price) • Celebrating special occasions and events. • Enjoyment, likes, dislikes and general eating habits or patterns. • Sensory qualities of food may be credited, only one mark maximum. **Any other valid responses should be credited.** **One word answers are allowed.**	4

02	**3**	**Potatoes can be cooked in different ways.** **Explain how each cooking method in the table below affects the nutritional value and the colour, flavour and texture of potatoes.** **Marking guidance** This question is assessed against AO2 **Award 1 mark for each valid point. Only 1 mark per box allowed.** **Indicative content**	6

	Repetition allowed	**If repeating answers each aspect needs a different focus e.g. Texture is allowed for all three methods, but the effects on texture must be different.**
Cooking method	**Effect on nutritional value**	**Effects on colour, flavour and texture**
Boiling	• Loss of water-soluble vitamins • Loss of B group and vitamin C due to heat • Some leaching of the minerals (iron and calcium) into the cooking water	• Little or no **colour** change • **Flavour** – improves and becomes more mild and pleasant after cooking • Softens the **texture**, feel moist in the mouth.
Baking	• Loss of water-soluble vitamins • Loss of B group and vitamin C due to heat	• Potato skin becomes darker brown/brown as cooking time progresses • Potato becomes darker brown/brown as cooking time progresses • Flavour of the potato intensifies/improves • Skin becomes crispier

			• Fibre is increased as the skin is usually consumed.	with prolonged cooking, eventually becoming tough.
		Shallow frying	• Loss of water-soluble vitamins • Loss of B group and vitamin C due to heat • Some water-soluble vitamins are retained (B group and vitamin C) as these vitamins are sealed in by the fat. • The fat content of the potatoes increases/extra fat added during all fat-based methods of cooking. • Addition of vitamin A, D E and K in the medium of fat	• Colour becomes golden and then darker brown with prolonged cooking. • The colour change is-The potatoes turn golden brown due to non-enzymic browning such as caramelisation. This results in a change of colour, flavour and texture. • Flavours intensify and improve • Some softening of the potato and then crisping of the outer parts

<table>
<tr>
<td>03</td>
<td>1</td>
<td>
Bradley, a 25-year-old active male tries to make healthy choices using the Eatwell guide when planning meals.
Information about two meals is given below. Using this information and your knowledge of healthy eating, nutrition and energy balance:

assess the suitability of each meal for Bradley
evaluate which is the healthier choice, justifying your reasons.

Marking guidance

This question is assessed against AO4.

Students will analyse the information given and evaluate each of the meals in relation to healthy eating.

Maximum of 6 marks if only one meal is assessed/evaluated.

If no reference to Bradley, marks in top band not allowed – i.e. max of 8 marks should be awarded.
<table>
<tr>
<td>Responses will include detailed factual explanations and qualified reasons which justify an appropriate meal choice and show thorough knowledge and understanding of the nutritional needs/energy balance of an active male adult. The choice of either A or B is justified including accurate reference to the Eatwell Guide, responses may include more general reference to consuming; less salt, less sugar, less fat and more fibre. There will be a good balance between analysis and evaluation.

Analysis is excellent and comparison of the meals is thorough and refers to at least 5-6 separate points relating to the ingredients, energy balance, nutrition and the Eatwell guide referred to in the indicative content.

Evaluation makes sound judgements and accurate conclusions are drawn which highlight elements required for a healthy diet for an active male adult and include 5-6 relevant justified reasons which are linked to analysis/findings.</td>
<td>9 – 12 Marks</td>
</tr>
<tr>
<td>Responses will include some factual explanations linked to the nutritional needs/energy balance of an active male adult and will include qualified reasons which justify an appropriate meal choice and show knowledge and understanding of the dietary needs/energy balance of an active male adult. The choice of either A or B is justified including good reference to the Eatwell Guide, responses may include more general reference to consuming; less salt, less sugar, less fat and more fibre. Response may be stronger in either analysis or evaluation

Analysis is good and comparison of the meals refers to 3-4 separate points relating to the ingredients, energy balance,</td>
<td>5 – 8 marks</td>
</tr>
</table>
</td>
<td>12</td>
</tr>
</table>

		nutrition and the Eatwell guide referred to in the indicative content. **Evaluation** draws some conclusions which highlight points required for a healthy diet, some for an active male adult and includes 3-4 relevant justified reasons which are linked to analysis/findings.	
		Responses will include limited factual explanations linked to the nutritional needs and/or energy needs of the active male adult and will include reasons to justify a meal choice that shows basic knowledge and understanding of their dietary needs and/or energy balance which includes limited reference to the Eatwell Guide. There may be an imbalance between analysis and evaluation where one aspect may be omitted or stronger. **Analysis** is limited and comparison of the meals refers to 1-2 separate points relating to the ingredients, energy balance, nutrition and the Eatwell guide referred to in the indicative content. **Evaluation** draws basic conclusions with limited reference to the requirements of a healthy diet for an active male adult and includes 1-2 reasons linked to their analysis of the data provided.	1 - 4 marks
		Nothing worthy of credit	0 marks
		Indicative content **Choice A - Spaghetti Bolognese** is higher in fibre, lower in fat, lower in saturated fat, lower in salt and sugar compared with choice B. All of these factors support healthy eating. The following relates to the nutrition of the ingredients in each dish. **Nutrients in ingredients:** **Fibre** – whole wheat pasta, tomatoes, onions, green peppers, mushrooms, celery and basil. **Low(er) fat ingredients** – **Lean** minced beef, pasta, all vegetables. Higher fat ingredients – Vegetable oil (used in small quantity) **Salt –** The Parmesan cheese and the added salt are used for flavour but the amounts are not excessive. **Sugars** - There are natural fruit sugars in the vegetables (intrinsic), no sugar is added. **5-a -day** – The vegetables; tomatoes, onions, green peppers, mushrooms, celery and basil contribute to the government recommended 5-a-day **Micronutrients** – The meat, pasta and mushrooms provide vitamin B1 The vegetables provide vitamin C, especially the tomatoes and green peppers.	

		Calcium is provided by the cheese, pasta and basil. Ingredients high in **energy** are; The pasta, beef and vegetable oil **Choice B - Cheese and onion pasty and chips with tomato ketchup** is lower in fibre, higher in fat, higher in saturated fat, higher in salt and sugar. **Nutrients in ingredients:** **Fibre** – potatoes, flour, onion **Low(er) fat ingredients** – Wheat flour, potato, tomato ketchup **Higher fat ingredients** – Vegetable oil, lard and Cheddar cheese. Lard and cheddar will be high is saturated fat. **Salt –** Salt, tomato ketchup and Cheddar cheese **Sugars** - Free sugar in the tomato ketchup, fruit intrinsic sugars in the onion and potato **5-a -day** – The onion is the only ingredient which would count and this is not a main ingredient. (Potatoes would not count as they are classified as a starchy carbohydrate) **Micronutrients** – The potatoes, tomato ketchup and wheat flour provide vitamin B1 The potatoes provide vitamin C, Calcium is provided by the Cheddar cheese and wheat flour. Ingredients high in **energy** are; The vegetable oil, wheat flour, potato, Cheddar cheese and lard. However, there are some nutrients/energy balance points which could be used in favour of choice B and these points should be credited. Both meals are high in B1 (thiamin). This is important as it helps to release energy from carbohydrates which is especially important for an active male. Eating excess B1 is not harmful as the body does not store it, but excretes in the urine. Both meals provide a good amount of vitamin C. This is a water-soluble vitamin so the body needs a daily supply. Eating excess vitamin C is not harmful as the body doesn't store it but excretes it in the urine. Also, vitamin C is easily destroyed by storage, preparation, cooking and being kept warm it is important to have a good supply to allow for this. The meals both contain similar amounts of calcium. Calcium is an important mineral needed for strong bones and teeth, and so a good supply is essential. In choice B, calcium is particularly high due to the Cheddar cheese and white flour (In UK, white flour is fortified with calcium by law). The spaghetti Bolognese has a good amount of calcium, being supplied mainly from the Parmesan cheese and the whole wheat pasta. The salt in the spaghetti Bolognese is about a third of the recommended amount, and that is acceptable. The sodium in the cheese and onion pasty is too high, this one meal contains more than the daily maximum salt consumption of 6g per day. A diet high in salt can lead to high blood pressure which is a risk factor for cardiovascular disease which includes coronary heart disease and strokes. **Table 2 shows the % of energy from each nutrient**	

		The ideal % recommended energy from the macronutrients in the UK is as follows: Carbohydrate 50% (of which max. 5% from free sugars) Fat 35% (or less) (of which max. 11% from saturated fat) Protein 15% Choice A matches the ideal % more closely. It is healthy as it is lower in fat 29% as compared to 55% in the pasty and chips meal. A diet high in fat can lead to long term effects on health such as obesity, cardiovascular disease which includes coronary heart disease and strokes. The carbohydrate is 51% in choice A as compared to only 38% in choice B. Choice A has starchy carbohydrates which are high in fibre. The carbohydrate % is too low, this is because the meal is high in fat. The carbohydrate comes from refined starchy carbohydrate – chips and the white flour in the pastry. The protein % in each choice is 20% for choice A and 7% for choice B. Therefore, choice A is closer to the recommended %. However, there are still **some** benefits for choice B – cheese and onion pasty, chips and tomato ketchup. The energy content of meal A is high and the energy content of choice B is very high – based on this either meal could be justified as being suitable for an active male adult. If insufficient energy is consumed for a prolonged period, weight loss would occur. If excess energy is consumed for a prolonged period of time, weight gain would occur. Bradley is an active male and therefore physically active. He will have a good Physical Active Level (PAL) and therefore use the energy. Being physically active: reduces the risks of several diseases, improves general health. **Any other valid responses should be credited.**	

03	**2**	**Give three functions of water in the body.** **Marking guidance** This question is assessed against AO1 **Award 1 mark for each valid point.** • Prevents dehydration/ for hydration • Regulation of body temperature e.g. sweating • Allows (internal) organs to function correctly • Chemical reactions in the body use water • Absorption of nutrients • Keeps correct concentration of nutrients. • Medium for dispersing nutrients • Needed for digestion of food • Removal of waste from the body/prevents constipation	3

		• Keeps skin moist and healthy • Water controls and regulates blood pressure and heart rate • To keep body fluids at the correct concentrations e.g. blood, saliva, urine. • To help brain function and or concentration **Any other valid responses should be credited.**	

03	**3**	**The table below lists six micronutrients. Give one function of each.** **Marking guidance** This question is assessed against AO1 1 mark for each valid point given, from the list below	6

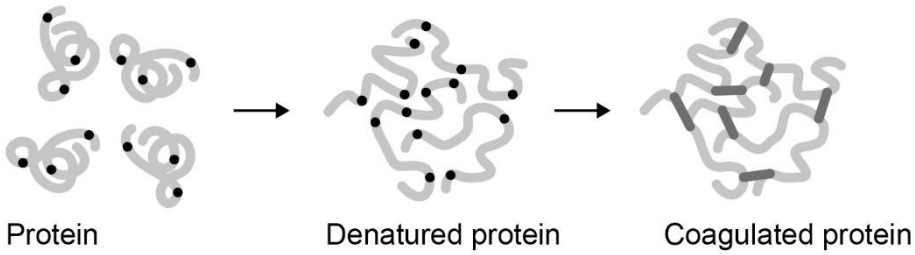
Micronutrient	**Function**
A	• Growth • Helps vision • Healthy eyes • Prevents blindness/night blindness • Keeps the skin healthy • Protects the body, it is an antioxidant • To maintain mucus membranes
B1 (Thiamin)	• Releases energy from food • Helps the nervous system • Prevents beri beri (a nerve and muscle problem) • **DO NOT ALLOW** - Gives energy or helps with energy
C (ascorbic acid)	• Makes and maintains healthy connective tissue • Helps wounds to heal • Helps the absorption of iron • Protects the body, (it is an antioxidant) • Prevents scurvy • For healthy skin • **DO NOT ALLOW** – 'skin'
K	• Helps blood to clot • Maintains bone health
Calcium	• Builds strong bones and teeth • Prevents tooth decay • Controls muscle function • Keeping a normal heartbeat • Helps blood clotting • For a healthy nervous system • Prevents rickets, osteomalacia and osteoporosis
Fluoride	• Prevents tooth decay • Supports bone health • Strengthens tooth enamel

03	**4**	**Denaturation and coagulation are processes that occur when some foods are heated.** **Describe the process of denaturation and coagulation when cooking eggs.** **You may use diagrams to support your answer.** **Marking guidance** This question is assessed against AO2 Students will apply their knowledge and understanding of denaturation and coagulation	6

Responses show thorough knowledge and understanding of both denaturation and coagulation. Detailed and factual descriptions are given which relate to eggs and clearly describe the stages of both denaturation and coagulation.	5 – 6 marks
Responses show some knowledge and understanding of denaturation and coagulation. Factual responses are given, some of which partly describe denaturation and/or coagulation.	3 – 4 marks
Responses show basic knowledge and understanding of denaturation and/or coagulation. Limited descriptions are given which attempt to describe denaturation and/or coagulation.	1 – 2 marks
No answer worthy of credit	0 marks

Labelled diagrams only - a maximum 4 marks should be awarded. Maximum of 3 marks if only denaturation or coagulation described/drawn.

- Proteins are large molecules, made up of individual units called amino acids.
- Chemical bonds hold the protein molecule bundle together.
- Denaturation is when protein changes shape due to heat (when cooking the eggs)
- Denaturation is when the chemical bonds are broken.
- Denaturation is a change in the protein molecules
- During denaturation, egg proteins unfold from their coiled shape and unravel
- Denaturation can be caused by heat, when caused by heat it is irreversible.
- Proteins will be denatured and coagulated by the rise in temperature (heat)
- Coagulation: When denatured protein molecules join together in large groups.
- Coagulation causes water to become trapped between the protein molecules
- Coagulation changes the appearance and texture of the food
- During coagulation, the protein sets due to the heat
- Egg white coagulates at 60˚C
- Egg yolk coagulates at 70˚C
- If eggs are overcooked, the coagulated proteins molecules tighten up and squeeze out the water.

		• The overcooked egg would be rubbery and watery (syneresis). • Credit should also be given for examples of dishes containing (cooked) eggs eg omelettes, boiled eggs, scrambled eggs, meringue, quiche, egg custards etc. • The egg changes colour when cooked, the albumen becomes opaque and white, the yolk becomes slightly paler. • The egg changes from a liquid to a solid **Diagrams are allowed and should be credited as part of the response eg:**  	

03	**5**	**Describe the controlled conditions when carrying out sensory testing.** This question is assessed against AO1 – Award one mark per relevant point • The room should be odour free • Tasting should be carried out away from where food has been prepared • A quiet area should be provided for tasting • Individual booths allow for quiet and an individual response • Controlled lighting eg red lighting • Provide glasses of water to sip in between samples to clear the tasters' palettes in between tasting each sample and/or plain crackers • Serve all food samples on identical plates/containers • Serve identical small portion size/servings • Do not allow tasters to discuss the results with each other • Samples to be served at the same temperature • Blind testing a) Tasting food without seeing it (eg with a blindfold) or b) Tasting food with codes which do not indicate their origin/ingredients. • Use trained taste panellists • Number of tasters. Sufficient to ensure the results are valid. • Same chart to ensure consistent recording of the results **Any other valid responses should be credited.**	4

03	**6**	**Explain the process of enzymic browning on raw apple slices. How can this be prevented?** **Marking guidance** This question is assessed against AO2 Use level of response approach for marking **Indicative Content:** **Enzymic browning explanation** • Enzymes are biological catalysts made from protein which speed up reactions. • Enzymic browning occurs when the enzymes in the apple come into contact with the oxygen/air. The process of oxidation takes place and apple changes colour from a very pale colour to brown. • Enzymic browning can occur when apples are bruised, peeled or cut. **Prevention** • To prevent enzymic browning, either the enzymes must be destroyed or contact of enzymes with air needs to be stopped. • Prepare apples just before serving, so that there is limited time for oxidation to occur. • Use an acid/acidic ingredient • Use fruit juice to soak the apple in before using as a topping. The fruit juice is acidic which denatures the enzymes in the apple which prevents enzymic browning from occurring – allow most fruit juices e.g., orange, lemon, lime, grapefruit, citrus. • Boil/blanch the apple slices to destroy the enzyme in the apple which cause enzymic browning • Explanation of blanching and how the process occurs and denatures the enzyme. • Coat apple slices in sugar/salt to keep the air out. • Use cling film and tightly wrap apples slices to keep the slices airtight • Soaking in cold water, (but vitamin C will be leached into the soaking water).	6

Responses show thorough knowledge and understanding of **both** enzymic browning and its prevention. Specific detailed and factual explanations with examples.	5 – 6 marks
Responses show good knowledge and understanding of **both** enzymic browning and its prevention. Factual responses with some explanation and examples.	3 – 4 marks
Responses show basic knowledge and understanding of either enzymic browning or its prevention. Limited explanation.	1 – 2 marks
No answer worthy of credit	0 marks

03	**7**	**Explain why nutritional information is included on a food label.** **Marking guidance** This question is assessed against AO2 Use level of response approach for marking | Responses show thorough knowledge and understanding of why nutritional information is included on a food label. Answers will include several detailed and factual explanations from the indicative content.	5 – 6 marks
Responses show good knowledge and understanding of why nutritional information is included on a food label. Answers will include some factual explanations from the indicative content.	3 – 4 marks
Responses show basic knowledge and understanding of why nutritional information is included on a food label. Limited explanation.	1 – 2 marks
No answer worthy of credit	0 marks	 **Marking guidance – either 1 mark per point, or 2 marks for an explained answer.** **Either 6 individual points or 3 extended points (or combination of both)** **Indicative content** • Because it's the law (since December 2016) • Helps consumers make informed choices because it gives the following information: • Nutritional information to allow consumers to compare products to see how healthy it may be; i.e. Low in fat, saturated fat, salt and sugar. • For awareness/to know the nutrients in food • To allow consumers to monitor their fat, salt, sugar and the amount of kcal (energy) they are consuming. • To allow consumers to compare their intake against their Reference Intake (R.I) and or per 100g • Traffic light labelling indicates clearly the healthiest products as the green labels, the amber meaning eat in moderation and the red labels meaning eat only occasionally. • To allow consumers to compare different foods to make an informed decision on the food choices made. • Can be used as a marketing tool for food manufactures. • Helps consumers select products that are on a calorie-controlled diet. • **Do not allow** – 'for someone on a diet', unless qualified.	6

04 **1** **The table below shows some problems seen when food is prepared. Complete the table to explain two different causes of each problem and two ways to prevent this occurring.** 8

Marking guidance

This question is assessed against AO2

1 mark for each valid point given, either from the list below or other relevant responses worthy of credit

Problem	Causes of problem	Prevention
Fresh pasta has a crumbly texture and could not be shaped.	Wrong flour – not enough gluten	Use bread flour / strong flour/ strong plain flour/pasta flour/ '00' flour.
	Wrong flour – wholemeal flour – too much bran in flour which causes crumbliness.	Use white flour or a mixture of wholemeal and white flour to improve the handling qualities of the dough
	Not enough liquid	Use more egg/water/oil, liquid to bind
	Insufficient kneading and/or mixing	Increase kneading/mixing time (until smooth and stretchy). Use a food processor for mixing.
	Dough not rested before shaping	Increase resting time.
	Left in fridge for too long before rolling/	Chill for less time, wrap well to avoid dehydration of dough
	Left uncovered in the refrigerator	Wrap well with cling film or in a plastic bag
	Inaccurate weighing/measuring of ingredients	Weigh carefully using reliable scales/digital scales and easy-to-read measuring jugs.
An all-in-one Victoria sandwich cake has a dense texture.	Wrong flour – eg plain flour	Use baking powder with plain flour or use SR flour
	No raising agent has been used	Use baking powder with plain flour or use SR flour
	Incorrect sugar, not allowing the all-in-one method to aerate the cake mixture.	Use caster sugar

			Fat melted before mixing	Use softened butter or fat spread to allow air to be beaten in to the mixture (melting does not allow air to be beaten in)	
			Not beaten/whisked for long enough	Beat/whisk for longer	
			Cake put into cold oven	Pre-heat oven before the cake goes in.	
			Oven temperature is too low	Increase oven temperature	
			Oven door opened during cooking which caused cake to sink	Don't open door too soon (e.g. until cake has risen and set)	
			Cake not cooked for long enough	Cook for required time until golden, firm and skewer comes out clean/ finger press to bounce back	
			Cake left in tins to cool (allowing condensation to dampen cake).	Use a cooling rack – remove cakes from tin about 5 mins after end of cooking time	
			Inaccurate weighing/measuring of ingredients	Weigh carefully using reliable scales/digital scales and easy-to-read measuring jugs.	
			Incorrect fat used e.g. low-fat spread, which has a high water content	Use butter or a fat spread without additional water.	

04	**2**	**Suggest four ways supermarkets and shops could reduce food waste.** **Marking guidance** This question is assessed against AO2 **Award 1 mark for each valid point, either from the list below or other relevant responses worthy of credit** **Indicative content** • Regularly check use-by and best before dates on food – **allow sell by date**. • Selling food past its best before date – at a reduced price • Invest in new technology to monitor date marks on food and to sell these off while still in-date. • Rotate stock, first in first out • Consider which buy-one-get-one-free offers to provide and avoid these on highly perishable foods with a short date mark on them • Store foods in the correct conditions and at correct temperatures. • Frozen – below -18°C Fridge 0°C to below 5°C (or legally up to 8°C) Hot food eg chicken rotisserie -minimum serving temperature of 63°C, ambient around 17°C • Sell imperfect fruit and vegetables at discounted prices. • Provide different sized containers for self-service bars so over purchase of food is not encouraged. • Sell loose foods to allow customers to buy just what they need • Provide secure and protective packaging to protect food from damage • Provide composting instructions on food labels • Distribute surplus food to charities/food banks • Provide recipe cards to help customers use left-over foods. • Oils that are left over may be converted into bio-diesels and when there are no alternatives, energy is generated by anaerobic digestion and incineration.	4

05	**1**	**Explain the nutritional and health benefits of fortified foods. Give examples in your answer.** **Marking guidance** This question is assessed against AO2 Response shows a detailed and thorough knowledge and understanding of the nutritional and health benefits of fortified food with examples. – 4 marks Response shows a good knowledge and understanding of health benefits of fortified foods. With at least one example. – 3 marks Response shows a basic knowledge and understanding of health benefits of fortified foods. – 2 marks Response shows a limited knowledge and/or understanding of fortified foods. – 1 mark No answer worthy of credit. – 0 marks **Indicative content:** • Fat spreads and low fat spreads are fortified voluntarily by manufacturers - Vitamins A & D added to margarine/fat spreads/low fat spreads to improve night vision, healthy skin, prevent rickets and osteoporosis. (Also accept as a response - vitamins A and D are added by law, as voluntary fortification is a recent change). • Calcium, iron, B1 (thiamin) and B3 (niacin) are added to flour – by law • Iron, vitamin D, B group vitamins, including folic acid added to breakfast cereals. Prevents iron deficiency anaemia, prevents neural tube defects (spina bifida) in babies the womb. • Vitamin B12, iron and calcium added to some soya products – useful for vegetarians and vegans • To improve health eg Benecol spread helps to lower cholesterol as it contains sterols and stanols from plants which naturally lower cholesterol and helps to prevent cardiovascular disease, heart disease, circulatory problems. Allow one mark only for the example. • Fluoride added to drinking water in some areas to reduce levels of tooth decay • Some bottled waters have calcium added to strengthen bones and teeth • Sports drinks have extra nutrients added to appeal to sports people eg protein, vitamins and minerals. E.g. Lucozade Sport. **Example(s) of food examples only with no reference to nutrients – only award one mark.**	4

05	**2**	**Type 2 diabetes is associated with lifestyle factors and is on the increase.** **Analyse and evaluate the reasons for this increase and the impact on health.** **Marking guidance** This question is assessed against AO4	8

Responses will include accurate and detailed factual explanations showing thorough knowledge and understanding of at least 4 different factors that relate to the increase in type 2 diabetes. There will be an even balance between analysis and evaluation Analysis is excellent and refers to at least four different factors that relate to the increase in type 2 diabetes. Evaluation makes sound judgements; linking analysis to impact on health eg see analysis and evaluation table below	7 – 8 Marks
Responses will include some detailed factual explanations showing knowledge and understanding of at least 3 different factors that relate to the increase in type 2 diabetes. Response may be stronger in either analysis or evaluation. Analysis is good and refers to three different factors relating to the increase in type 2 diabetes. Evaluation will make some judgements; linking analysis to impact on health eg see analysis and evaluation table below.	5 – 6 Marks
Response will include limited factual explanations which show basic knowledge and understanding of at least 2 factors that relate to the increase in type 2 diabetes. There may be an imbalance between analysis and evaluation where one aspect may be omitted or stronger in one aspect. Analysis refers to two different factors relating to the increase in type 2 diabetes. Evaluation will make basic judgments; linking analysis to impact on health eg see analysis and evaluation table below.	3 – 4 Marks

Responses will include few factual explanations showing little knowledge and understanding of why increasing numbers of people develop type 2 diabetes. Analysis is limited and refers to only one factor relating to the increase in type 2 diabetes. Evaluation will be limited on the impact on health related to type 2 diabetes.	1 – 2 Marks
No answer worthy of credit.	0 Marks

Indicative content

A main reason for the increase in type 2 diabetes is related to lifestyle

People are more likely to develop type 2 diabetes if they are/have:
- Overweight or obese
- Over 40 years old
- Increase in the consumption of processed foods/ready meals/take away foods Eating too many sugary, fatty, salty foods
- Diet high in free sugars
- Drink sweetened drinks - sugary fizzy drinks are a particular problem
- Sedentary lifestyle and lack of exercise.
- Excess alcohol consumption (increases blood sugar).
- A diet of refined carbohydrates (white flour, bread, rice, pasta etc) and free sugars.
- An unbalanced diet not based upon the Eatwell Guide.
- Lack of fibre in the diet
- Diets not eating the recommended 5 portions of fruit and vegetables
- Lack of education about healthy diets.
- Low income

Type 2 diabetes could lead to health condition:
- Damage to blood vessels
- Loss of feeling and pain (nerve damage)
- Foot problems – like sores and infections
- Amputations
- Vision loss and blindness
- Miscarriage and stillbirth
- Problems with the kidneys
- Skin not healing properly if it gets infected, bruised or damaged.
- Weight gain or weight loss
- Feeling tired and weak
- Feeling thirsty
- Frequent urination

Any other valid responses should be credited.