

GCSE (9-1)

Examiners' report

FOOD PREPARATION AND NUTRITION

J309

For first teaching in 2016

J309/01 Summer 2023 series

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Introduction

Our examiners' reports are produced to offer constructive feedback on candidates' performance in the examinations. They provide useful guidance for future candidates.

The reports will include a general commentary on candidates' performance, identify technical aspects examined in the questions and highlight good performance and where performance could be improved. A selection of candidate answers is also provided. The reports will also explain aspects which caused difficulty and why the difficulties arose, whether through a lack of knowledge, poor examination technique, or any other identifiable and explainable reason.

Where overall performance on a question/question part was considered good, with no particular areas to highlight, these questions have not been included in the report.

A full copy of the question paper and the mark scheme can be downloaded from OCR.

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Paper 1 series overview

The paper gave an opportunity for all abilities of candidate to access the questions. Candidates could and did attempt most of the questions. It was evident that candidates had sufficient time to answer all the questions.

The questions catered for candidates of all abilities. Candidates were eased into the paper with a question that provided the words to use in the response. Some questions on the paper required more specific detailed knowledge in order to answer correctly which allowed for higher ability differentiation. Candidates were clearly well prepared for the examination, which is a great achievement considering the wide and varied content of the specification.

Some areas needed to be taught in more detail as candidates were often unable to apply deeper understanding of nutrition and food science, they also demonstrated a lack of knowledge in a variety of other areas of the specification. It was evident where topics had not been taught or had not been taught in enough detail as a lack of knowledge was seen on some of the questions.

| Candidates who did well on this paper generally: | Candidates who did less well on this paper generally: |
|---|---|
| <ul style="list-style-type: none"> • had a good understanding of nutrition • had clear knowledge of the types and functions of sugars • could explain in detail both the dietary and nutritional needs of elderly people • could explain how and why diet related health issues could develop in elderly people • were able to recall accurate knowledge of the heat treatment of milk • were able to use subject specific terminology correctly. | <ul style="list-style-type: none"> • made careless mistakes due to not reading/answering the question that was asked • had limited knowledge about food labelling • had limited knowledge of the functions of fat in food preparation • gave very brief responses to the questions requiring extended responses • had little knowledge of nutrition. |

Question 1 (a)

1 Ingredients are used in the preparation of food products for their different functions.

(a) Complete the table to show how eggs are used in the preparation for each food product.

Use each word from the list below once or not at all.

Aeration
Binding
Coagulation
Coating
Emulsification
Foam formation
Glazing

| Food product | How eggs are used |
|--------------|-------------------|
| Beef burgers | |
| Fish fingers | |
| Mayonnaise | |
| Meringue | |
| Quiche | |
| Swiss roll | |

[6]

Many candidates answered this question well showing a clear knowledge of the functions of eggs. Some candidates were unclear about the difference between foam formation and aeration and incorrectly stated aeration for meringue and foam formation for swiss roll.

Question 1 (b) (i)

(b) (i) Explain how a crumbly texture is created by fat in the preparation of shortcrust pastry.

.....
.....
..... [2]

Very few candidates were able to explain how the texture is created. Candidates often related the response to their practical work and described the rubbing in method.

Assessment for learning



Candidates should be taught that when answering a question that asks them to explain something, they are required to apply their knowledge and explain what happens and why.

Exemplar 1

The fat covers the flour particles, preventing them from absorbing ~~water~~^{water}. This stops gluten from forming. This is called shortening. [2]

Exemplar 1 shows a candidate who was able to answer the question correctly.

Question 1 (b) (ii)

(ii) Explain why olive oil is suitable for vegans to use.

.....
.....
..... [2]

Most candidates were able to identify that olive oil is not made from animal products but from a plant source. Many did not provide a developed response and did not explain 'why' this was suitable for a vegan.

Question 1 (c) (i)

(c) (i) State **two** reasons butter is used in baked products.

1

.....

2

.....

[2]

Many candidates answered this question well with a variety of responses from the mark scheme.

Question 1 (c) (ii)

(ii) Explain why yeast is used when making some baked products.

.....

.....

.....

.....

.....

[3]

This question was generally well answered because candidates could explain logically that yeast is a raising agent which produces CO2 and gives a well risen/aerated texture to the baked product.

Assessment for learning



The vast majority of candidates were able to recall that yeast is a raising agent or it made baked products rise, however this only gained them 1 mark. When a question has 3 marks and asks for candidates to explain, they should be taught that three points should be made in order to give a detailed explanation of what happens and why.

Question 1 (c) (iii)

(iii) Identify **one** baked product that is made using yeast.

..... [1]

Many candidates answered this question well as most were able to identify that bread was made using yeast.

Question 1 (c) (iv)

- (iv) The crust on some baked products becomes brown when dry heat is applied. This happens because starch in the flour is changed into sugar.

State the name of this process.

..... [1]

Some candidates were able to demonstrate the use of subject specific terminology in order to answer this question correctly. Some candidates knew the response but struggled to spell the word correctly.

Question 2 (a) (i)

- 2 (a) (i) Identify **two** ingredients that must be shown on food labels because they can cause an allergic reaction.

1

2

[2]

Most candidates were able to identify one ingredient that can cause an allergic reaction that must be shown on a food label, however many were not specific in identifying the type of nut or they stated dairy products and therefore could not achieve 2 marks.

Question 2 (a) (ii)

- (ii) State **five** pieces of information, other than allergy warnings, required by law to be on a food label.

1

2

3

4

5

[5]

Many candidates answered this question well stating at least three correct pieces of information. Candidates who were unable to recall the correct terminology did less well, stating responses such as expire date and producer. Some candidates gave responses such as how much fat/calories/sugar and traffic light label which are not mandatory.

Question 2 (b)

(b) Explain what **lactose intolerant** means.

.....

.....

.....

..... [2]

Many candidates were able to access 1 mark because they could recall it was when a person could not consume dairy product or milk. Many did not gain a second mark as they did not recognise that lactose intolerant suffers could not 'digest' or 'cannot breakdown' the lactose.

Question 2 (c)

(c) State **two** symptoms of coeliac disease.

1

2

[2]

Most candidates provided correct responses to this question while some were not specific with some responses.

Question 4 (a) (ii)

(ii) Flour is used to thicken the meat sauce.

Explain why flour should be stored in a dry, airtight container.

.....
.....
..... [2]

Very few candidates were able to explain why flour should be stored in this way. Common errors were when candidates linked bacteria/mould growth to the incorrect storage of flour. Some candidates focused on the thickening of the meat sauce in their responses.

Exemplar 2

To prevent the growth of bacteria, as bacteria needs moisture and oxygen to grow.

Exemplar 2 shows a typical incorrect response.

Question 4 (a) (iii)

(iii) Describe the methods of heat transfer used to cook the meat sauce.

.....
.....
.....
.....
..... [4]

Many candidates could recall the correct terminology with convection and conduction often stated however, the explanations were not always correct.

Question 4 (a) (iv)

(iv) State the temperature for safe reheating of the meat sauce.

..... [1]

Some candidates could state the correct number but did not include the °C.

Question 4 (b) (i)

(b) (i) State the correct operating temperature for a domestic freezer.

..... [1]

Some candidates could state the correct number but did not include the °C.

Question 4 (b) (ii)

(ii) Explain why it is important **not** to refreeze raw meat once it is defrosted.

.....
.....
..... [2]

Very few candidates provided correct responses to this question as they focused on defrosting the first time and not what happens after refreezing.

Assessment for learning



Candidates must read questions carefully and answer the question being asked. This question asked why meat should not be refrozen. The response required details of the effects when it defrosted for a second time. Very few candidates made this link, as many they had a clear knowledge of bacteria reproduction and conditions required for bacteria to reproduce.

Question 5 (a)

5 People choose to eat certain foods for different reasons.

(a) State **one** reason why people choose to include probiotic foods in their diet.

..... [1]

Candidates gave a wide variety of incorrect responses to this question showing little understanding of probiotics. Religious and cultural reasons were favoured responses along with links to general good health.

Question 5 (b)

(b) State **two** reasons why people choose to eat fresh vegetables.

1

.....

2

..... [2]

Some candidates did not gain the marks for this question as they provided very vague responses.

Misconception



Some candidates had a misunderstanding of the word 'fresh'. Many thought fresh referred to it being local/organic/low food miles/pesticide free. Candidates also confused it with raw, with responses along the lines of retaining nutrients when not cooked, rather than associating it with not being tinned, juiced, dried or frozen. Some candidates also discussed why vegetables that are 'going off', 'bruised' would not be chosen. Candidates sometimes over complicate the response to a straightforward question.

Question 5 (c)*

(c)* Discuss ways of saving money when buying food.

.....

.....

.....

.....

.....

.....

.....

..... [8]

Many candidates demonstrated an understanding of ways to save money when buying food and performed well on this question because they were able to discuss a wide variety of ways with very clear explanations. Candidates demonstrated relevant knowledge possibly because this is a topical subject. Where candidates performed less well, they wrote in bullet points or digressed into using and storing leftovers, food miles, growing your own vegetables or using food banks which are not linked to buying food.

Question 6 (a)

6 Energy in food is measured in units.

(a) Identify the **two** units used to measure the energy in food.

1

2

[2]

Candidates answered this question stating a variety of units of measurements. Some candidates repeated the response giving both the word and the abbreviation for the same unit of measurement. The most common incorrect response 'joules'. Some responses given related to weight such as grams.

Question 6 (b)

(b) Sam eats these foods for breakfast:

- Tinned fruit in syrup
- Fried egg and pork sausage with tomato ketchup
- Hot chocolate made with full fat milk.

State **four** ways the foods in this breakfast can be modified to reduce the energy content.

1

.....

2

.....

3

.....

4

.....

[4]

Many candidates answered this question well as they were knowledgeable about alternate options for common breakfast items to reduce energy content. A few candidates however made reference to changing/removing elements of the breakfast rather than modifying the ingredients.

Question 7 (a)

7 (a) State **two** functions of carbohydrates in the diet.

1

2

[2]

Most candidate were able to identify energy as a function of carbohydrates while fewer candidates were able to identify a second correct response.

Question 7 (b)

(b) Explain the difference between a monosaccharide and a disaccharide.

.....
.....
..... [2]

Very few candidates provided correct responses. Candidates correctly knew 'mono' meant one and 'di' meant two but were unable to link this to sugar. This question requires detailed subject specific knowledge.

Exemplar 3

monosaccharide is one sugar molecule,
disaccharide is two sugar molecules
per starch molecule. [2]

Exemplar 3 shows a response which shows clear knowledge.

Question 7 (c) (i)

(c) (i) State three properties of sugar when used in food preparation.

1
2
3 [3]

Many candidates could state that one property of sugar when used in food preparation is to add flavour or to sweeten. Some candidates did not correctly read and understand that it was the properties of sugar being required and instead named types of sugar.

Question 7 (c) (ii)

(ii) State **two** ways too much sugar in the diet can affect the body.

1

2 [2]

Many candidates could state one correct way. When marks were not gained it was often because candidates gave vague responses such as rotten teeth and diabetes without indicating type 2.

Question 8 (a) (i)

8 Fruit and vegetables can be prepared in different ways.

(a) (i) State **two** ways vegetables can be prepared to enhance their appearance.

1

2 [2]

Many candidates answered this question correctly, others referred to types of presentation rather than preparing.

Question 8 (a) (ii)

(ii) State **two** ways vegetables can be cooked.

1

2 [2]

Many candidates were able to answer this question correctly.

Question 8 (b)

(b) Describe **two** ways of reducing enzymic browning when preparing fruit and vegetables.

1

.....

2

.....

[2]

Many candidates were able to describe at least one way of reducing enzymic browning. The most common incorrect responses related to leaving in the fridge or in a tight container.

Question 9 (a)*

9 Different methods can be used to process foods.

(a)* Describe the different methods used in the heat treatment of milk.

.....

.....

.....

.....

.....

.....

.....

[6]

Some candidates demonstrated really detailed knowledge in their answers to this question. Candidates had either been taught this topic well and knew a lot of detail, names and temperatures/times, or they had little or no knowledge of the topic. Some candidates explained how to heat milk at home on the hob/microwave or mentioned homogenisation. Some were able to name the correct methods but did not accurately describe them.

Question 9 (b)

(b) State **two** advantages of chilled ready meals.

1

.....

2

.....

[2]

Many answered this question well, giving a wide variety of answers from the mark scheme.

Question 9 (c)

(c) Explain the process of blast chilling food.

.....

.....

.....

.....

[2]

Some candidates knew that blast chilling 'cools food quickly'. Many candidates talked about freezing the food therefore not responding to the question accurately. Very few explained why this was important in preventing the growth of bacteria/reduces time in the danger zone.

Question 10 (a) (i)

10 Different methods can be used to cook food.

(a) (i) Identify **one** water-based method of cooking that uses the hob.

..... [1]

This was a very well answered question showing clear understanding.

Question 10 (a) (ii)

(ii) State **one advantage** of water-based cooking methods.

..... [1]

This was a well answered question.

Question 10 (b) (i)

(b) (i) Identify **one fat-based method** of cooking which uses the hob.

..... [1]

This was a very well answered question showing clear understanding.

Question 10 (b) (ii)

(ii) State **one disadvantage** of fat-based cooking methods.

..... [1]

This was a well answered question.

Question 10 (c)

(c) Explain why casseroiling is often used to cook tough cuts of meat.

.....
.....
.....
.....
..... [2]

Many candidates were able to gain 1 mark for being able to identify that this option softens or tenderises the meat but very few developed their responses in order gain a second mark.

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