

# FOOD AND NUTRITION

**Paper 6065/12**

**Theory**

## **Key messages**

Candidates should be reminded that where a specific number of responses are asked for in a question (e.g. State **two**...), they should only write this number of responses. Only the first number of responses demanded by the question will be marked and any additional responses will be ignored even if correct.

It is important that comprehension of technical words related to Food and Nutrition such as function, symptom, source and nutritional are reinforced so that candidates are not disadvantaged when understanding what is required from questions.

## **General comments**

Candidates generally had a good knowledge of nutrition. Questions that asked for more applied, practical solutions, where knowledge had to be adapted to answer the questions, were not answered so well. This was particularly noted in questions that asked for a description or explanation.

Candidates need to have a full understanding of the requirements of different question types: name, state, give, describe, outline, evaluate and explain. Often, candidates had difficulty in achieving the full marks for questions asking for an explanation, because answers were not supported with relevant linked examples or reasoning. Additionally, some of the technical questions relating to food products and nutritional understanding were incorrect or vague. Technical understanding enables candidates to access the higher marks.

## **Comments on specific questions**

### **Section A**

#### **Question 1**

The majority of candidates were able to state the term used to describe the food that is normally eaten every day. Common incorrect responses included nutrition, balanced diet and daily meal.

#### **Question 2**

(a) Most candidates were able to explain that proteins with a higher biological value contain all the essential amino acids. Better performing candidates showed more knowledge by stating that proteins with low biological value lack one or more essential amino acids and stated that essential amino acids cannot be made by the body. Common incorrect responses included simply describing protein foods as animal or plant or omitting 'essential' from the correct description of amino acids.

(b) (i) Many candidates were able to give at least two correct responses for this question. As the question asked for different animal foods, marks could not be credited for naming foods from the same category such as two dairy foods or meat and poultry. Candidates who gave more than two responses could only gain marks from the first two responses given.

(ii) This was generally not answered well. A common misconception was mixing up LBV and HBV protein found in plant foods. Common incorrect responses included beans, lentils and a variety of different vegetables. The most popular correct response was soya. Different forms of soya, such as

tofu, tempeh or soya milk, could only be credited once as the question asked for different plant foods. Better performing candidates named quinoa, Quorn and chia.

(c) Most candidates correctly stated that young children require protein for growth. Better performing candidates also gave the correct justification.

### Question 3

(a) Many candidates correctly identified glucose as the monosaccharide that should be eaten to give an immediate release of energy. A common incorrect response, possibly indicating the question had not been read properly or a lack of understanding, was giving a carbohydrate food.

(b) Most candidates were able to correctly identify at least one enzyme involved in the digestion of carbohydrates. The most common correct responses were maltase and amylase. Better performing candidates stated the different types of amylase: salivary amylase and pancreatic amylase. Candidates should take care with spelling as often maltose and sucrose were seen which could not gain credit.

### Question 4

(a) This was generally not answered well. Common incorrect responses included monosaturated and polysaturated rather than monounsaturated and polyunsaturated.

(b) The majority of candidates were able to identify at least three correct responses with CHD, high blood pressure and obesity being the most popular correct responses.

### Question 5

(a) This question was well answered by most candidates.

(b) Most candidates were able to give one correct response with formation of red blood cells, growth, health of the nervous system and release of energy from nutrients being the most common answers. Few candidates were able to achieve more than one mark and there seemed to be a lack of knowledge regarding the functions of vitamin B<sub>12</sub>.

(c) This question was well answered by most candidates who showed their knowledge that most sources of vitamin B<sub>12</sub> are from animal foods or products and explained that vegans do not eat these types of foods. Some candidates omitted the explanation that vegans do not eat animal foods.

### Question 6

(a) Most candidates were able to correctly state the need for calcium to form bones and teeth, prevent bone related diseases and help with blood clotting. Better performing candidates showed knowledge of its importance in aiding nerve and muscle functioning.

(b) (i) The majority of candidates correctly identified anaemia as the deficiency disease caused by a poor supply of iron.

(ii) This was generally not well answered. Many responses gave deficiency diseases that were unrelated to iodide deficiency.

(c) This was generally not answered well. Many candidates were able to give at least one correct food that was a source of phosphorus. As the question asked for different foods, marks could not be credited for naming foods from the same category such as two dairy foods or meat and poultry. Candidates who gave more than four foods could only gain credit from the first four answers given.

(d) This question was not well answered. Some candidates were able to correctly state that high sodium intake raises blood pressure and that potassium lowers blood pressure. Few candidates were able to give a correct explanation as to why this leads to hypertension.

## Section B

### Question 7

(a) (i) The majority of candidates correctly identified carbon dioxide as the gas produced when using bicarbonate of soda. Common incorrect responses included hydrogen, nitrogen, oxygen, methane and carbon monoxide.

(ii) Many candidates were able to provide at least two correct responses with many giving all three. Incorrect responses referred to the bicarbonate of soda being stored away from strong smells or kept away from children.

(b) This was generally not answered well. Some candidates showed understanding of part of the method, but answers were often not fully formed or missed key information, for example, some candidates only melted the margarine and sugar without adding the syrup or did not **sieve** the flour, bicarbonate of soda and ginger into a mixing bowl. Common incorrect responses included adding dry ingredients to the wet ingredients in the pan used for melting the ingredients and adding the egg and milk to the margarine when being melted.

(c) (i) This was generally not answered well with few candidates able to state why there were holes on the surface of the baked cakes.

(ii) A few candidates showed knowledge and understanding of why a baked gingerbread might have sunk in the middle. Common correct responses included that the gingerbread may not have been baked for the correct length of time and the oven door had been opened too soon.

### Question 8

(a) Most candidates were able to correctly name at least one oil suitable for deep frying. The most common correct responses were canola, vegetable and sunflower oil. A common incorrect response was olive oil as it does not have a high smoke point.

(b) This question was not well answered. Better performing candidates were able to show understanding of how heat can destroy water-soluble vitamins and that deep frying will add to the fat-soluble vitamin and energy content of the food. Some candidates gave vague responses of nutrients being destroyed rather than water-soluble vitamins. Some incorrect responses included starch and NSP being destroyed.

(c) This question was well answered with many candidates giving three correct words to describe the texture of deep-fried potatoes. Crispy, crunchy and soft were the most popular correct responses.

### Question 9

(a) This question was well answered. Butter, cream, ice cream and yoghurt were the most frequent correct responses.

(b) This was generally not answered well. Incorrect responses included cheese being made from milk which cannot be eaten by lacto-vegetarians and that it contained egg or meat.

(c) This question was well answered with many candidates giving two correct foods.

(d) The majority of candidates correctly stated cheese should be wrapped or kept in an airtight container and stored in the refrigerator.

(e) Many candidates showed good knowledge of why a person who is lactose intolerant should not eat a cheese sandwich. Many candidates correctly stated that cheese is made from milk and that both milk and cheese contain lactose. Better performing candidates stated a person with intolerance to lactose has a shortage of the enzyme lactase so would be unable to digest the lactose.

### Question 10

(a) The most common correct responses included protection from microorganisms or vermin, protect product from damage during transport and protection from cross-contamination from other foods. Some candidates only gave one word responses without giving a full description. Incorrect responses included giving general functions of packaging such as containing the product, providing information on labels and being useful for heating food products.

(b) The majority of candidates gave correct disadvantages of using metal as a packaging material. The most common correct responses were that it is expensive, heavy, it may rust, is easily dented or damaged, may be difficult to open and there is a risk of injury from sharp edges when opening and metal cannot be used in the microwave. The most common incorrect answers were about imparting a metallic taste or not being able to be recycled.

### Question 11

This question was not well answered. Common correct responses were that paint is easy to clean, long lasting and available in a range of colours. Many answers commented that paint is waterproof and stainproof without stating that these are specialist not general paints. Incorrect responses stated that paint is cheap, covers cracks in the wall, does not peel off and go in food, stops insects and does not smell.

### Section C

#### Question 12

This question was the most popular choice.

Those candidates who structured their answer well and included precise, relevant and well discussed answers achieved higher marks.

Some candidates correctly mentioned considering age, occupation and levels of activity to ensure energy needs were related to energy output. Some then gave a detailed discussion on the merits of exercise when the question asked for meal planning and so could not gain credit. Reference to increasing NSP in the diet was often detailed but candidates did not identify how this could be achieved and there was little discussion on how it helps to prevent obesity by providing a sense of satiety.

Some candidates stated the health effects and causes of obesity, which was not required in the question, without addressing how this could be resolved when planning meals.

Common incorrect answers included suggesting that using olive oil instead of saturated fat would help prevent obesity and that salt is a cause of obesity with discussion on the effect of salt on the body.

#### Question 13

This question was the least popular choice.

Better performing candidates covered the full range of vitamins and were able to provide more than one function relevant to the mother and developing baby. Many were able to name several sources of each vitamin that were suitable for a lacto-vegetarian.

Only a few candidates showed their full understanding of the topic by discussing the toxic nature of large quantities of vitamin A, the importance of washing all fruits and vegetables and the need to use specific preparation and cooking methods in order to conserve water-soluble vitamins.

Some candidates discussed the macronutrients, minerals, water and fibre required rather than the vitamins. Although their points may have been correct responses, they could not be credited as they were outside the boundaries of the question requirements.

# FOOD AND NUTRITION

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**Paper 6065/13**  
**Theory**

There were too few candidates for a meaningful report to be produced.

# FOOD AND NUTRITION

Paper 6065/02

Practical

## Key messages

- The inclusion of clear photographs is essential for moderation. Centres should ensure that all dishes are not obscured by table decorations, labels or coverings so that they are clearly visible and that candidates do not appear in the picture. Each dish should be clearly labelled so that the name of the dish can be seen in the photograph, without obscuring the food. One small table decoration only is required and dishes should be grouped closely together so that a clear, close-up picture can be taken. Only one clear, hard copy of the final dishes is required; centres should not send CDs.
- All centres must complete and include the Practical Examiner's Report and checklist with the candidates' work. This can be found in the Confidential Instructions document. It includes a record of the dates when the planning and practical tests were carried out, a seating plan and the opportunity for the teacher to report any difficulties that may have occurred during the Test.
- For each examination session centres should download and use the most recent forms. These are available on the Cambridge website with interactive summary mark sheets and working mark sheets that will automatically total the marks and scale correctly. Many centres are using this system effectively now, although a significant number are still rounding up the scaled mark instead of rounding down.
- Examiners should refer to the Practical Test Training Handbook, and the Guidance for Skill Levels document available online from the Cambridge website and ensure that the mark scheme is accurately, rigorously and consistently applied across the cohort. All examiners should refresh their knowledge of the instructions and mark scheme annually. Marks awarded must reflect the comments given on the examiner marksheets and the annotations on candidates' planning sheets.
- Half marks should not be awarded in the test as this can lead to over-marking. Where marking results in a decimal point, these must be rounded down, not up.
- Work for each candidate should be collated and paper clipped together including:
  1. Front Mark sheet
  2. Candidate's Time-plan
  3. One Photo of all dishes made (please do not include photos of candidates).

## General comments

The better performing candidates answered the demands of the test allocated accurately whilst demonstrating sufficient skills in using a wide range of ingredients, manipulation of various mixtures and different cooking methods that make full and sensible use of the oven, grill and the top of the cooker. Candidates who applied their theoretical knowledge of nutritional requirements for specific groups, tended to score most highly. Good practice was seen when candidates demonstrated their understanding of the test requirements through identifying on the plan which of the dishes have been chosen for each of parts **(a)** and **(b)** of the question as well as stating how each dish chosen fulfils the requirements of a test question. This also applied to questions that require candidates to demonstrate the use of named ingredients/equipment/cooking methods for example.

Most candidates had made a good effort to display their final dishes attractively using suitable and imaginative garnishes to enhance their tests with appropriately dressed tables and place setting for meals or other events. Better performing candidates showed regard for the 'theme' of the test when planning their final displays, for example, food for a party on a party table setting.

Some candidates did not make suitable choices which fulfil the test requirements or did not demonstrate the use of a range of ingredients, skills and a variety of cooking methods. Better performing candidates made skilled and complex dishes from scratch which demonstrated their knowledge of consistencies and cooking methods and required a range of manipulative skills and kept the use of convenience foods to a minimum unless the test asks for them.

There were many good examples of ‘dovetailing’; this is a complex skill that allows candidates to show how, while one dish is cooking, another is being prepared or decorated. Better performing candidates used dovetailing to demonstrate the logical and efficient use of time and allowed them to make dishes of a higher skill level within the time allowed. Some candidates had time left at the end of a plan indicating a lack of skill in the dishes chosen or errors in timing for other processes.

Candidates should be reminded that for the purposes of the practical test, a balanced main meal consists of two skilful dishes and at least two suitable accompaniments. The two skilful dishes can either be a starter and a main course; a main course and a dessert or two complementary main dishes, that would typically be eaten together in the same meal. Some candidates mistakenly planned two main course dishes that were not complementary to a specific meal and this resulted in menus that were too heavy in carbohydrate and/or protein.

Better performing candidates gave brief and accurate details of preparation, cooking methods, cooking times and oven temperatures in their planning and indicated in the Special Points column how they will test that each item of food or recipe is cooked. Some candidates wrote over too many planning sheets; the maximum should be two and any extras should mean that marks are adjusted as it is an indication of too much detail being put into the time plans. Time plans should indicate sufficient work to fill 150 minutes; no less and no more.

Most examiners provided detailed annotations on the front sheets and within the work. There were several examples of good practice when examiners commented on a) how choice of dishes met the test requirements, b) how well the work was planned with reference to dovetailing skills, sequencing skills, use of appropriate methods and accurate detail in the special points column, c) the practical and organisational skills demonstrated during the practical test and d) the taste/textture and appearance of the final results with reference to the sensory word bank in the Handbook. Good practice was also seen when examiners indicated on the work where and how they were allocating marks. For example, on the Choices and Recipe sheet, examiners recorded a mark out of four for each dish chosen as well as a mark out of five for the ingredients listed. Also, time plans were marked using the recommended abbreviations (DT, W, M, SQ etc.). All candidates' work must show evidence of marking, with annotation clearly written on the work to evidence how and where marks have been awarded or reduced using the key provided in the handbook. Examiner annotation should be in a different coloured pen so that it stands out from the candidates' work.

Marks for choices were awarded accurately and fairly, with some exceptions. If a dish is awarded 4 marks for Choices, it should be marked out of 7 for Results; conversely any dish with marks reduced to a maximum of 3 in Choices for low skill level should then be marked out of maximum 5 for Results. An initial wrong choice can be awarded a maximum of 2 marks for Choice, and maximum of 4 in Results. It is not necessary to reduce marks for recipes if a wrong choice is made, and candidates can gain up to full marks in the remaining planning as well as in the practical itself.

The marks for the method of working and the final results sections were often a little generous considering the number of incorrect or low skill dishes, or dishes that were not produced at all. Where this is the case the total number of marks in each section should be reduced. As a general rule, if a candidate chooses five dishes but only makes three in the practical examination they can only be marked out of 33 within Method of working (11 marks per dish or per two accompaniments). Where dishes chosen are simple and do not require a lot of manipulative skills or knowledge of consistencies, marks should be reduced in the method section. In Results, incorrect dishes should be awarded a maximum of 3 marks and for low skill dishes 4 or 5 maximum should be awarded, depending on the dish.

Where candidates fail to make or serve a planned dish, marks for method of working as well as serving and appearance must also be reduced – marks cannot be transferred to other dishes.

## **Comments on specific questions**

### **Question 1**

(a) This question required a balanced meal for two vegetarians. Dishes could include eggs and/or dairy, but no meat or fish products. This was a popular test, and the better performing candidates planned a suitable selection of dishes using pulses, nuts or alternative protein foods to create nutritional meals. A common error was to rely on cheese and repeat this ingredient in multiple dishes.

(b) This question required a flaky pastry dish. The majority of candidates chose their pastry incorrectly, often using bought puff pastry or using shortcrust. Flaky pastry is listed on the syllabus and candidates should be able to demonstrate their knowledge of the proportions of fat to flour, list a correct recipe as well as the correct mixing, rolling and folding procedures for the dough.

A batch of sweet or savoury scones was also required, and better performing candidates produced scones with even sizing and a good rise with a natural break around the centre. Ideally these are served with butter, cream, jam, or a savoury spread if appropriate.

### **Question 2**

Most candidates produced suitable and interesting arrays of dishes and remembered to indicate the 'culture' that each dish represented. A few candidates incorrectly chose different 'styles' or regional dishes within a culture. As with all questions requiring a selection of dishes, rather than a meal, candidates do need to give careful consideration to the final collection of dishes, so that they produce a balanced menu.

### **Question 3**

(a) This test required a balanced main meal for teenage girls and was a popular choice. Teenage girls need a rich supply of iron with vitamin C to aid absorption, as well as nutrients for growth, development and health. Many candidates produced meals that were lacking in iron. Egg (yolks), red meat and liver are ideal ingredients to use, and non-haeme iron content can be boosted with addition of green leafy vegetables, such as okra, kale or broccoli, pulses, dried fruit or cocoa.

(b) Some candidates produced good examples of dishes using oily fish. Several candidates incorrectly used white fish. It should be remembered that **tinned** tuna is not classed as an oily fish.

Most candidates made suitable small cakes. Many candidates did not decorate their cakes – large or small – with neat icing, frosting or piping. This is required if candidates are to gain full marks for their cakes.

### **Question 4**

(a) This required three dishes for a manual worker's packed meal suitable for serving cold. Better performing candidates were able to demonstrate their understanding of the question by choosing dishes that were both high in protein and carbohydrates, were easy to transport and suitable to eat cold as part of a packed meal. Popular dishes included Cornish pasties, sausage rolls, pizza and Scotch eggs. Many of candidates mis-read the question and produced dishes that were not suitable for eating cold.

(b) Victoria sandwich cake and marble cake were both popular choices for demonstrating the creaming method. Cakes should be decorated skilfully using glace icing, buttercream or frosting to gain higher marks. A few candidates stated on their recipe sheet that they had chosen a cake using the creaming method but then used the all-in-one method in their time plan.

A variety of biscuit types were made, and better performing candidates produced biscuits that were attractively iced or dipped in melted chocolate to enhance them. Candidates who mistakenly used a creaming method biscuit mix, gained fewer marks due to the repeated skill.

### Question 5

(a) Three dishes with **high** fibre content were required. The better performing candidates used ingredients such as wholemeal or granary flour, brown (unpolished) rice or wholegrain pasta as a base for dishes. The addition of pulses, nuts and seeds were useful in increasing the NSP dietary fibre content of the dishes. Many candidates simply chose three vegetable-based dishes such as vegetable stir fry with noodles, vegetable gratin and raw vegetable salads, demonstrating that they had a limited knowledge of sources of dietary fibre.

(b) Better performing candidates showed their understanding of coating batters, with battered fried fish or chicken being popular choices. A high number of candidates found this question difficult, and most made a dish using a breadcrumb coating rather than a coating batter. A few candidates incorrectly chose dishes that used a pouring batter instead and made pancakes.

For the whisking method cake, Swiss roll and sponge cake were popular and accurate choices. Some candidates did not understand that the whisking method is a specific cake making method in which eggs and sugar are whisked together before flour is folded in. They chose dishes that 'used a whisk', such as cheesecake whereby cream and cheese are whisked together, or an all-in-one cake that used an electric whisk to mix.

Batters and specific cake mixes are listed on the syllabus and it is important that candidates are able to demonstrate knowledge and understanding of these in their practical test.

### Question 6

(a) Some candidates produced a balanced main meal showing knowledge of the needs of young children. Most candidates were able to choose dishes that would be appealing and suitable for the target group. Some struggled with correct portion sizes and with ensuring the meal was nutritionally balanced. Dishes such as macaroni cheese, spaghetti bolognese and pizza with potato wedges were popular choices. Many candidates produced dishes that were low in vitamins content. Some candidates included child friendly vegetable accompaniments. Often the quantity of food served on the table was too much for a child to eat.

(b) The dishes were generally well chosen. Many candidates included mini quiche, mini pizza, or filled fresh bread rolls for cold savoury dishes and cupcakes and biscuits were popular cold sweet choices.

When a test has a specific theme such as a packed meal or picnic it is expected that candidates will serve the relevant dishes in appropriate transportable containers.

### Question 7

(a) Candidates needed to demonstrate excellent and careful planning skills to avoid repeats in this popular test, in which many successful candidates clearly identified the named method being used. Baking, grilling and deep-fat frying were the most popular cooking methods. Popular dishes chosen included sponge cakes and pastry dishes (baking), macaroni cheese and pasta bake (grilling), and Scotch eggs (deep-fat frying). Some candidates made incorrect choices for the cooking method grilling, for example, chicken legs and a whole chicken are not suitable for grilling as they would not cook successfully or safely.

(b) Many candidates were able to choose skilful dishes using a roux sauce. Popular choices included vegetable au gratin, pasta bake, lasagne and spinach pancakes with cheese sauce.

Sweet or plain scones were often chosen accurately. Better performing candidates avoided repeating the use of cheese if they had chosen a cheese dish for part (a) or for the roux sauce for part (b).

### Question 8

This popular test required five dishes using different named main ingredients from a given list. Many candidates identified the ingredient for each dish chosen on their recipe sheet, which is good practice. Most candidates produced suitable menus, although some did not meet the requirements of 'skilled' dishes as they chose accompaniments such as simple salads when using green leafy vegetables or made simple grilled chicken and fish dishes. Where milk is specified, it needs to be more than a splash; the dish should feature milk in such a way that it could not be made without the key ingredient, for example, 50 ml of milk is barely a mouthful and cannot be considered a 'main' ingredient. Cocoa or chocolate could be used as a key ingredient and there were some good examples of chocolate cakes or cookies made. For yeast or wholemeal flour, many chose bread dough, which does need to be finished as pizza, Chelsea buns or filled rolls to elevate the skill level.

Few candidates understand the meaning of 'wholemeal flour' – this refers to wheat flour that is made from the complete grain of the wheat plant, including the outer part. It is sometimes called 'wholegrain' flour and is different from all-purpose flour or plain flour that the majority of candidates used. Some candidates wrote "wholemeal" on their Choice and Recipe plan, but then the shopping list and photographic evidence shows they have used white flour instead.