

FOOD AND NUTRITION

Paper 6065/12

Theory

Key messages

Candidates should be reminded to read the question carefully and note words such as different, good and explain to ensure the required response is given.

In future, it is recommended that candidates are taught more on the topic areas of the correct temperatures, use and benefits of freezers and the functioning and use of microwave ovens. The misconceptions on health when using microwaves should be corrected.

General comments

Candidates generally had a good knowledge of nutrition. Centres should make sure that candidates are prepared for questions that ask for more applied, practical solutions where knowledge had to be adapted in order to answer the questions. Candidates need further practice in areas such as needs for protein by different groups, being aware of sugar when shopping, reasons for particular information on a food label and aspects of freezing.

Comments on specific questions

Section A

Question 1

This was well answered by the majority of candidates. The expected response was malnutrition being the term used to describe an incorrect intake of nutrients.

Question 2

- (a)** Most candidates correctly identified night blindness as a disease that vitamin A helps prevent. Incorrect responses included simply stating blindness or giving a disease that would be applicable to another vitamin.
- (b)** Many candidates provided at least two correct responses by naming animal foods that are a good source of vitamin A. It should be emphasised that the question asked for **different** sources so when candidates named more than one dairy food or more than one type of offal, they could not be given full marks. Some candidates did not specify **oily** fish or named plant food sources of the vitamin. As the question asked for **good** sources of the vitamin, red meat and poultry were incorrect responses.
- (c)** This was well answered by the majority of candidates. The expected response for a disease that vitamin C helps prevent was either anaemia or scurvy.
- (d)** Many candidates provided at least two correct responses by naming foods that are a good source of vitamin C. It should be emphasised that the question asked for **different** foods so when candidates named more than one citrus fruit, they could not be given full marks. Some candidates did not specify **new** potatoes or identified incorrect food items such as meat, fish, cheese, nuts and seeds. The most common correct answers were oranges, bell peppers, green leafy vegetables, mango, kiwi, strawberries and tomatoes.

(e) Many candidates answered this correctly. The most popular correct answer was clotting of blood.

Question 3

(a) The majority of candidates correctly identified hydrogen; sometimes oxygen was seen. Some candidates incorrectly named carbon, possibly indicating that the question had not been read properly.

(b) The majority of candidates were able to state at least one correct fact about monounsaturated fats. The most common correct responses included monounsaturated fats are liquid at room temperature and monounsaturated fats are plant based. The candidates who knew the science of fats stated the molecule has one double bond or was more reactive and could take up more hydrogen. Some candidates incorrectly referred to different types of sugar and others gave responses on a different type of fat.

(c) Most candidates were able to provide at least two correct examples of monounsaturated fat. It should be emphasised that the question asked for **different** examples so when candidates named more than one type of nut oil or seed oil, they could not be given full marks. A few candidates incorrectly identified food products such as meat or fish, or gave vegetables and fruit or stated glucose, fructose, sucrose and lactose.

(d) Many candidates were able to correctly identify the enzyme involved in the breakdown of fats during digestion as lipase.

(e) Very few candidates were able to correctly name smoke point as the stage during heating at which a blue haze is given off from the surface of fat or oil. Incorrect responses included burning, melting and emulsifying.

(f) Very few candidates gave the correct response of antioxidant as being the type of additive used in foods containing fats and oils to prevent rancidity. Incorrect responses included preservatives, emulsifier and salt.

Question 4

(a) Many candidates gave the correct required response. Weaker responses included incorrectly stating that LBV was low in protein, not good for the body and an amino acid that lacked protein.

(b) Most candidates were able to name at least one food that is a good source of LBV protein. The question asked for **different** foods so when candidates named more than one type of pulse or more than one type of cereal, they could not be given full marks. Weaker responses incorrectly identified soya, tofu and HBV sources of protein.

(c) This question was generally not answered well. Many candidates were able to provide four relevant groups of people. Some candidates were able to then provide a suitable explanation for why these groups need different amounts of protein. Often explanations were not fully justified or were too generic.

Question 5

(a) This question was attempted by nearly all candidates. Some candidates incorrectly omitted 'type 2' and stated only diabetes.

(b) This question was generally not answered well. Responses were often repeated in a different way e.g. buy sugar free products, buy reduced sugar products or buy low sugar products. Some responses were vague such as buy foods with less sugar or do not buy fizzy drinks. Incorrect responses included buying more vegetables, use honey, jaggery or brown sugar instead or do not buy food with sugar in. Many candidates referred to reducing sugar when cooking food rather than shopping for food.

Section B

Question 6

- (a) It was expected that candidates would show their knowledge of the whisking method through their answers to this question. Many omitted details of which ingredient to sieve or stated whisking just the egg or egg white with no mention of the sugar and many incorrectly referred to creaming or beating fat and sugar.
- (b) The majority of candidates were able to correctly identify egg as the ingredient that causes coagulation during baking. Incorrect responses included other ingredients from the list and some ingredients that were not on the list e.g. yeast.
- (c) The majority of candidates were able to correctly identify flour as the ingredient that causes dextrinisation during baking.
- (d) The majority of candidates were able to correctly identify sugar as the ingredient that causes caramelisation during baking.
- (e) Most candidates gave two or three correct safety points when using an electric hand mixer. Many candidates provided unrelated points when using an electric hand mixer rather than the safety points. The most common incorrect responses included monitoring the speed of the mixer so the motor did not overheat, not taking the mixer out of the bowl while it is working to avoid mixture going everywhere, not washing the mixer only the beaters and making sure it was clean before and after use to avoid contamination.

Question 7

- (a) This was generally not answered well. Many candidates referred to a picture of a product attracting buyers which is a benefit to the manufacturer, not a benefit to the consumer. The most popular correct response was that the consumer can see what is being bought.
- (b) This question was generally not well answered. Many candidates did not clearly explain the benefits to consumers of cooking instructions on a food label. Incorrect responses given were that it would be easy for the consumer and the consumer would know what to do. It was expected that answers would indicate someone unfamiliar with the product could achieve a good end result, avoid food poisoning or know if they had the time and correct equipment to be able to cook the product.

Question 8

- (a) Some candidates gave a good response to this question demonstrating a sound understanding of the term convection. Other candidates gave vague responses and some confused convection with conduction. It was expected that candidates would be able to describe convection being carried out through liquids and gases, the molecules becoming less dense when heated and rising, whilst the cooler molecules being more dense and falling and hence, a convection current is formed and a constant temperature is reached.
- (b) The majority of candidates were able to provide at least three correct responses with many providing all four correct responses. Incorrect responses included frying, air frying, grilling and blanching.

Question 9

- (a) The majority of candidates correctly named salmonella as the bacteria that may be present in eggs. Occasionally, the incorrect responses E. coli and listeria were seen.
- (b)(i) Few candidates were able to correctly state that growth of bacteria would be slowed or that shelf life would be improved by storing eggs in a cool place. Candidates need to understand the conditions required for growth of bacteria. This seemed to not be fully understood with many answers incorrectly stating bacteria would be prevented from growing or spoilage would be prevented.

- (ii) The majority of candidates showed understanding of the fact bacteria could enter a cracked egg and could cause contamination.
- (iii) This was generally not answered well. Very few candidates made reference to the porous nature of the egg shell and the ability to absorb smells. Responses tended to be generic such as the egg would smell or become spoiled.
- (c) The majority of candidates gave the correct response that hands should be washed after handling raw eggs to prevent cross-contamination. Occasionally incorrect responses such as washing the dishes, work surfaces and the eggs were seen.

Question 10

Very few candidates gave the correct response. Candidates need to fully understand the reasons for leaving food to stand for a few minutes after microwave cooking. This seemed to not be fully understood with incorrect responses such as the need for food to cool to avoid burning the fingers or mouth and the need for the radiation waves to disappear as these are dangerous. There were many misconceptions around the danger of radiation posed by microwaves and candidates often incorrectly stated that microwaves could cause cancer and were unsafe.

Question 11

- (a) Very few candidates managed to provide the correct temperature for storing food in a freezer. Common incorrect responses were temperatures similar to fridge temperatures.
- (b) This question was not answered well by the majority of candidates. As the question stated that freezing is a popular method of preservation, responses referring to the preservation purpose of freezers were not credited. Some candidates provided correct statements as to why a freezer is useful for a family. Clear explanations or justifications for the statements were not always provided.
- (c) (i) Some candidates provided at least one correct response with reference to removing the dirt or killing bacteria. Very rarely were other correct responses seen.
(ii) This question was generally not answered well. Correct responses regarding why food should be covered included to prevent freezer burn, prevent entry of microorganisms or prevent cross-contamination.
(iii) The reasoning behind allowing a home-made lasagne to cool before freezing was not well understood by many candidates. Most attempted the question, but some incorrectly referred to allowing the lasagne to set or making the taste develop or that microorganisms would still multiply. Some answers did reflect a realisation that hot food would affect the temperature of the freezer or make other products start to thaw but in some cases this reference was vague as the answer just said the temperature would change.

Section C

Question 12

This was an equally popular choice.

Candidates who gave good, well discussed and evenly balanced responses, achieved more marks.

Some candidates provided expected responses noting convenience foods are generally high in fat, sugar and salt and low in NSP and contain additives. It is essential that the response is structured well as it was not always clear which explanation went with which statement.

Many candidates gave generic benefits of convenience food such as they save time when shopping, preparing and cooking and they are good for people who have little cooking skill. It is essential that when answering questions of this nature, candidates read the requirements of the question carefully to give a balanced response that addresses all areas of the question. Some candidates discussed the positive and negative impacts of convenience foods not related to **health** which could not gain credit.

Question 13

This was an equally popular choice.

Better performing candidates referred not only to the necessity for calcium to build and maintain teeth and bones but also the role of calcium in helping to prevent tetany, maintaining a healthy nervous system, helping muscles to contract and its role in blood clotting. Many candidates made reference to and gave descriptions of rickets, osteomalacia and osteoporosis in various depths.

Many candidates were able to name groups of people for whom calcium is important and provided some good evidence for their statements. No credit was given for suggesting sources of calcium or which other nutrients it is supported by e.g. phosphorus and vitamin D, since this was not asked for in the question. Some candidates discussed a wide variety of nutrients required by different age groups, providing both function and source, which was not a requirement of the question and so could not gain credit.

FOOD AND NUTRITION

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. 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, as these cannot be viewed by Moderators.
- All centres must complete and include the Practical examiner's report 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 series, 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.
- Examiners should refer to the Practical Test Handbook and the Guidance for skill levels document available online from the School Support Hub to 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 to include:
 1. Practical Test Working Mark Sheet,
 2. Candidate's Time Plan,
 3. One photo of all dishes made (please do not include photos of candidates).

General comments

Some centres incorrectly transferred marks from the summary marksheets to the MS1 and these had to be adjusted at moderation. All centres must check that marks have been accurately awarded, correctly added up and scaled, and that the mark submitted to Cambridge matches the mark awarded to the candidate. Many centres incorrectly awarded half marks, which were then adjusted during moderation.

Most examiners provided detailed annotation 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 d) the taste/texture and appearance of the final results with reference to the sensory word bank in the Practical Test Handbook. Good practice was also seen when examiners indicated on the work where and how they were allocating marks. For example, on the 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.). This enables Moderators to give more accurate and consistent advice in the report to centres. It is a requirement that all candidates' work must show evidence of marking, with annotations clearly written on the work to evidence how and where marks have been awarded using the key provided in the Practical Test Handbook. Examiner annotations should be in a different coloured pen to the candidates' work so that it stands out.

Candidates need careful preparation for the practical test and they would benefit from some practice with cooking more than one dish at a time so the skill of dovetailing their work is developed prior to the test.

The most successful centres presented work of a good standard where candidates have been very well supported through well-directed teaching, enabling them to show their achievement and submit interesting and varied work which met the assessment criteria.

Many candidates still struggle with the concept of a balanced main meal and centres should try to focus on this aspect of menu planning during practical lessons. Referring to the Practical Test Handbook will help teachers and examiners to understand the requirements of such test questions. Centres should note 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.

Some candidates need more guidance and practice with meeting nutritional needs so that they can accurately answer the demands of the test allocated 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. This does rely on the expertise of their teachers. Candidates need to be able to apply their theoretical knowledge of nutritional requirements for specific groups. They should be taught how to select suitable dishes for a range of nutritional requirements so that during the planning session, they instinctively know how to plan a suitable balanced meal or menu. It is important that examiners have a good working knowledge of the methods and processes listed in the syllabus and the nutritional requirements of different groups, as well as good knowledge of ingredients. This then enables the examiner to mark the candidates' work accurately.

Good practice was seen in centres where candidates demonstrated their understanding of the test requirements through identifying which of the dishes have been chosen for **part (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. Marks should not be deducted if candidates do not do this. Examiners are reminded to indicate on the choices sheet how many marks have been awarded for each individual dish with justification given on the mark sheet. In the main, 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.

From the photographs included, it was pleasing to see many wonderful examples of colourful arrays of food with appropriately dressed tables and place setting for meals or other events. All candidates do need to consider what the final overall presentation would look like and plan to make colourful dishes or use suitable and imaginative garnishes to enhance their tests. Candidates should show regard for the 'theme' of the test when planning their final displays; for example, food for a party needs a party table setting, whereas food for a main meal needs a different but appropriate setting, and food for a packed meal needs to be served as a packed meal. The candidates need to write their choices in order of the test and clearly indicate which dish is for which part of the test. These should then be annotated by the examiner with marks awarded for each choice of dish.

Most candidates had made a good effort to display their final dishes attractively. The main issues lie in the interpretation of the test requirements and ensuring the planning is more accurate. Candidates should be encouraged to make more suitable choices which fulfil the test requirements and which demonstrate the use of a range of ingredients, skills and a variety of cooking methods. They need to make skilled and complex dishes which demonstrate their knowledge of consistencies and cooking methods and which require a range of manipulative skills. Candidates who are aiming for high grades should be making their dishes from scratch and keeping the use of convenience foods to a minimum unless the test asks for them. Centres are again reminded that drinks should not be made, unless specifically required and cannot be awarded any marks in the test.

Planning should include brief but accurate details of preparation and cooking methods, cooking times and oven temperatures. Candidates should indicate in the special points column how they will test that each item of food or recipe is cooked – for example they should state that a sponge cake would be baked until 'golden brown and springy to touch', pasta 'cooked until al dente'. 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. Candidates should use dovetailing to demonstrate the efficient use of time and to

allow them to make dishes of a higher skill level within the time allowed; and where dovetailing is not evident, the maximum marks available for the time plan are 5. Time left at the end of a plan indicates a lack of skill in the dishes chosen or errors in timing for other processes. Some of the plans were written over too many pages. 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.

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 3 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 3.5 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

Part (a) required a balanced meal for two women who are lactating. Dishes needed to be nutrient dense, and the overall meal needed to contain the 400–500 extra calories required for breastfeeding. All candidates remembered to avoid prohibited fish. Many candidates were able to demonstrate their understanding of the dietary needs of lactating females. The dishes chosen were based on starchy foods, which in some cases used wholegrains such as brown rice. Good sources of lean protein were seen along with plenty of fresh vegetables, salads and fruit. Many candidates chose two suitable accompaniments and created a well-balanced meal.

Part (b) required a hot pudding with a sauce and a batch of savoury scones. Good examples were seen of steamed sponges or fruit crumbles with custard sauce. Some candidates chose more unusual dishes that had a sauce integral to the pudding; these did not generally fit the brief. Some good examples of savoury scones were seen; however, many candidates mistakenly made sweet scones and in some cases these were marked correct by examiners.

Question 2

Part (a) required three skilful dishes using different dairy products. Excellent planning was seen from many candidates who chose dishes that demonstrated a dairy product prominently in the dish. Some candidates struggled to plan successfully, resulting in repeated use of a dairy product such as cheese or cream in more than one dish. Almost all candidates remembered to choose a minimum of two savoury dishes.

Part (b) required a dish to show the use of a frying pan and a dish using oats. A variety of shallow, deep and stir-fried dishes were seen. Popular choices included Scotch eggs, fritters and samosas. For the dish using oats, most candidates chose oaty biscuits or flapjacks, and many of those with flapjacks elevated the skill level with interesting extra ingredients and/or chocolate drizzle/coating.

Question 3

This question was popular with all centres. Five skilful dishes for a street festival were required, with a minimum of three savoury dishes plus one dish requiring a tray bake or batch of small cakes. Dishes for a street festival should be easy to eat on-the-go. Hot or cold dishes can be served, and candidates need to give careful consideration to the final collection of dishes as a balanced menu is required. Most candidates chose suitable and interesting dishes, although dishes such as lasagne and spaghetti bolognese would not work quite so well for this test due to the dishes not being easy to eat on-the-go. The best candidates remembered to ‘theme’ their displays and use suitable serving trays and dishes.

Question 4

Part (a) required a balanced main meal high in calcium and vitamin D. This was a popular choice by many centres; however, not many candidates understood how to plan for this test. Most candidates relied heavily on dairy foods to provide both nutrients, and some menus did not provide a meal high in the nutrients. The best candidates showed knowledge of nutritional content of a wider range of ingredients, including adding mushrooms, oily fish, egg (yolks), red meat, liver and fortified foods, such as plant milks, to their dish. Calcium content can be boosted with addition of green leafy vegetables, such as okra, kale or broccoli, seeds, almonds and pulses.

Part (b) required a savoury dish showing the use of a rolling pin. A variety of pastry and bread dough dishes, such as pizza, were chosen. Some candidates chose scones to represent the use of a rolling pin. These are accepted, but not ideal as scones do not need to be 'rolled out', and 'patting out' works better for scones as there is less risk of rolling too flat or making the dough tough. In addition, a sweet dish using the whisking method was required. The best candidates made dishes such as fruit flans, Swiss rolls and sponge cakes. Chocolate brownies are not suitable for this method, as they are more closely associated with the melting method.

Question 5

For **part (a)**, three skilful dishes suitable for vegans were required. Centres who choose this test must be certain that candidates fully understand the requirements of a vegan diet and the examiners have secure knowledge of the vegan diet so that they can accurately mark the work. Recipes must be carefully checked for 'hidden' animal ingredients, such as oyster sauce (seen in several candidates' choices), and ingredients that can be easily overlooked, such as eggs, cheese or butter. Margarine or stock cannot be assumed to be vegan – these must be clearly stated on the plan, including in shopping lists. The best candidates considered complementary proteins in their menus, along with good sources of nutrients that are more difficult to find in a vegan diet, such as vitamin B12, calcium and iodine.

Part (b) required a sweet dish using dried fruit and a cake made by the creaming method. Fruit scones or cinnamon rolls were popular choices for the sweet dish using dried fruit. For cakes using the creaming method, examiners must check that the correct method is planned and used. Some candidates wrote a creaming method recipe in their choice section, but then make an all-in-one cake in the practical. All-in-one cakes are lower skilled and should be marked as such. A few candidates made small cakes instead of one large cake, which resulted in a wrong choice. All cakes must be filled and/or decorated to gain full marks and the decoration must be evident at the planning stage.

Question 6

This popular test required four dishes using different named ingredients from a given list. Most candidates produced suitable menus, although some did not meet the requirements of 'skilled' dishes, as they chose accompaniments when using green leafy vegetables or rice instead. Not all dishes to show use of tropical fruit were correct, with some candidates making apple-based dishes. Where candidates use lemon for this test, the lemon needs to be a prominent feature of the dish, such as lemon drizzle cake, or lemon tart. Soya was often well-used as a meat substitute in dishes such as burgers or lasagne. A splash of soya sauce is not the best way to show this as a 'main' ingredient.

Part (b) required a batch of biscuits and we saw a large variety of biscuit types, with good quality biscuits in the results. The best candidates remembered to finish their biscuits with a suitable decoration.

Question 7

This was a popular choice for many centres. **Part (a)** required three skilful savoury dishes showing the use of a different root or tuber vegetable. Many candidates clearly identified the named root or tuber vegetable to be used in the savoury dish with carrots, potatoes and sweet potatoes being the most common choices. Some candidates incorrectly listed onions, garlic and ginger as root vegetables, and many of these were marked as correct by examiners. Additionally, some candidates chose lower skilled dishes or accompaniments, which were not always marked accurately. It is important that examiners mark incorrect, repetitive or low-skilled dishes accurately.

For **part (b)**, a dish using yeast and a batch of scones were required. One of the dishes must be sweet and the other dish must be savoury. Lots of appetising-looking cinnamon rolls and pizzas were made. Where

bread dough is chosen for this test, it must be made into a skilful dish as bread rolls or loaves are classed as accompaniments.

Question 8

There were some good choices for **part (a)** showing knowledge of the needs of elderly people. The best menus planned light, easy to digest meals with suitable quantities for smaller appetites. A good supply of protein with calcium and vitamin D is particularly useful for this target group. Often, the menus were too high in carbohydrates and fat.

For **part (b)**, candidates often successfully made a using short crust pastry, although they needed to be careful not to repeat this in **part (a)** or to use the rubbing-in method twice. Dishes using the melting method were most often batches of biscuits or chocolate brownies.