

# FOOD AND NUTRITION

---

Paper 6065/12  
Theory

## **Key messages**

Introductory words and sentences should be noted to establish the type of information required in the answers.

Candidates should be encouraged to re-read their work and check that there is no repetition within the response and answers given are relevant to questions asked.

Candidates should be reminded to read questions carefully so that when a question asks for different food sources they do not name, for example, three green vegetables or three dairy foods.

## **General comments**

It was pleasing to see the vast majority of candidates attempted to answer all the questions on the paper.

On the whole scripts were well presented and handwriting was legible and easy to read.

This paper contained a broad and varied distribution of marks which achieved a good balance of recall, selection, application and communication of knowledge and understanding in Food and Nutrition.

Questions requiring simple, straightforward answers requiring candidates to name, state or give were generally done well.

In questions where explanation or discussion is required candidates should be reminded to expand upon points made, justifying their answer by including descriptions or examples which provide evidence of their knowledge and understanding.

## **Comments on specific questions**

### ***Section A***

#### **Question 1**

Most candidates correctly answered that metabolism is the term used to describe chemical processes that take place in the body.

#### **Question 2**

- (a) (i) Majority of candidates correctly stated that monosaccharide is the chemical name for simple sugar though there were some who incorrectly stated glucose or gave the chemical formula for glucose.
- (ii) Many candidates gained both available marks for this question, sometimes spelling was a little incorrect, but responses were correct.
- (b) Most candidates provided a response, the most popular being energy. Some candidates correctly stated a function of NSP for a further mark. Some, however, indicated that excess would be stored as fat or used for growth.

### Question 3

- (a) Many candidates were able to correctly name three or four oily fish. The most popular responses were salmon, mackerel, tuna and sardines. It was interesting for Examiners to see a range of local fish named. Incorrect responses generally referred to a white fish or a shellfish.
- (b) Many candidates achieved at least one mark, soya products, dairy products and eggs being the most frequent answers. Marks were lost for naming soya and then naming a soya product or naming more than one dairy food.
- (c) (i) Majority of candidates were able to correctly name two enzymes that break down proteins during digestion.
- (ii) Many candidates were able to give the correct response to this question.
- (d) Most candidates were able to give the correct response to this question.

### Question 4

- (a) Many candidates were able to give at least one correct response to this question.
- Most popular responses indicated that vitamin E is an antioxidant, helps with healthy skin, immune system and blood cells. Occasionally, fertility was mentioned.
- (b) Candidates frequently achieved the full three marks, responses covered a range of products from the mark scheme. When candidates did not achieve full marks, this was often due to a repeat of the dairy foods, naming milk and cheese or omitting the word wholegrain for cereals or cereal products.

### Question 5

Most candidates showed a good knowledge of the functions of vitamin C, with some good marks overall. Most popular responses indicated that vitamin C prevented anaemia, helped the immune system, helped forming strong bones and healing wounds.

### Question 6

- (a) Many candidates were able to achieve the mark allocated. Very few no responses were seen but when incorrectly answered candidates referred to the elderly, people who did not go outside and were housebound.
- (b) (i) Majority of candidates were able to correctly identify the mineral calcium helping to prevent rickets though some did give phosphorus for the mark.
- (ii) Many candidates correctly named vitamin D though there were a few who named other vitamins so were not awarded the mark.
- (c) There were some good responses to sources of vitamin D with dairy, oily fish, egg and red meat being the most popular. Occasionally repeats from dairy were sources included resulting in only one mark being awarded. Sometimes candidates did not reference red meat or oily fish so could not be awarded the mark.

### Question 7

- (a) Majority of candidates achieved one or two marks. When correct the most popular responses were obese and not having enough exercise. Very rarely were age, genetics or high blood pressure associated as a risk factor.
- (b) When answered correctly the most popular responses were use less sugar and increase fruit and vegetables. Not many candidates achieved the four marks allocated to the question as many did not include saturated when referring to fat, or reduce intake of refined carbohydrates. Many repeated reducing sugar in different ways. Reference to taking more exercise was also included which suggests the candidates did not read the question carefully.

## Section B

### Question 8

- (a) This question, based around conditions for microorganism growth, was not particularly well answered. Candidates sometimes referred to the sell by date in chiller B being incorrect and so the cream would spoil before the other one. Some referred to the temperature being high but gave vague reasons as to why this is a concern. Very little reference to danger zone or cream being a high-risk food.
- (b) This question was not well answered with limited marks allocated as most candidates showed a distinct lack of knowledge of the process of manufacturing condensed milk. Vague responses were seen that referred to milk being heated with no reference to temperatures or time, some recognised that condensed milk is sweet so stated that sugar was added, occasionally water evaporation was included. The end product was sometimes stored in the fridge or sealed in a container but limited reference to sealing in cans.
- (c) (i) Most candidates were able to provide one or two correct responses but did not always achieve the allocated three marks as repeated answers were seen naming two or three types of offal or three varieties of red meat. The most common incorrect response indicated milk being a good source of iron.
- (ii) Majority of candidates achieved the allocated mark. The most popular response was to prevent anaemia or for the formation of haemoglobin. The most common incorrect response indicated that iron was for the formation of blood or red blood cells.
- (d) Majority of candidates attempted a response though with varying degrees of success.

It was apparent there was confusion around the term best-before on a food label. Many candidates claimed that the product would be good before the date but would become inedible after and cause food poisoning. Only a few stated that the quality would deteriorate after the date but it would still be acceptable to eat the product.

### Question 9

- (a) It was clear that most candidates were aware of the causes of food spoilage.
- A range of responses from the mark scheme were seen with many candidates achieving the two marks allocated. The most popular responses were mould or fungi, incorrect storage temperature and pests.
- (b) The majority of candidates were able to achieve some marks though few achieved the full five marks available. Quality of responses varied, some candidates simply gave one word answers or repeated responses in a different way. The most popular responses were sugar content in jam could be reduced, jam could be custom made using own choice of fruit, home-made jam is cheaper some even citing food miles involved, the avoidance of artificial chemicals in the form of flavourings or colourings, some even stated that making jam is an enjoyable, fun thing to do.
- (c) (i) Many candidates indicated that salt would kill bacteria or that water was reduced but with no reason as to how this would prevent food spoilage. Very few full marks awarded.
- (ii) Many candidates stated that vinegar is an acid but it was expected that candidates would reference the acidic nature of vinegar preventing microorganisms from reproducing as they need a slightly alkaline or neutral pH in which to grow.

### Question 10

- (a) (i) Most candidates achieved at least two marks with prevention of a bad smell, reduce food poisoning and for better flavour being the most popular responses. The fact that fish is a high risk food due to the high protein and moisture content required by microorganisms was rarely mentioned.

- (ii) Most candidates achieved at least two marks. Some answers were repetitious or vague referring to cross-contamination but without describing whether bacterial or physical nor whether it was from the fish to other food in the storage area or vice versa.
- (b) Many candidates were able to identify two moist methods of cooking fish with steaming and stewing being popular. A common misconception was that boiling is a suitable method and quite a few candidates chose non-moist methods such as baking and frying.
- (c) Majority of candidates were able to identify two or three effects of cooking on fish. Popular responses seen referred to coagulation of protein, fish becoming softer or more digestible, fish flaking and flesh colour changing.
- (d) This was generally well answered showing knowledge of suitable sources of vitamin C that could be included as part of a fish dish.

#### Question 11

- (a) Many candidates achieved the three marks allocated. When full marks were not gained this was due to candidates including sieving as part of their response or putting rolling or folding but not together.
- (b) Majority of candidates achieved the allocated mark with yeast and baking powder being most popular responses.

#### Question 12

Most candidates did not achieve the full marks available as they failed to differentiate between personal and kitchen safety precautions, and quite a number gave responses relating to hygiene. Correct answers included hair being tied back, not wearing jewellery, wearing an apron and not wearing long sleeved clothing.

#### Section C

The questions in this section are worth fifteen marks and candidates are expected to answer in an essay style, using correct terminology and specialist technical language where appropriate.

It is essential that when answering questions of this nature candidates read the question carefully, keep within the requirements and parameters of the question and provide a balanced response that addresses all areas of the question equally.

#### Question 13

This was the least popular of the essay questions. Responses varied in completion length which is a concern as this is a question where candidates can score highly by demonstrating appropriate recall of knowledge and understanding.

Candidates were asked to discuss the aeration and coagulation functions of eggs in the preparation and cooking of dishes and illustrate their response with relevant examples.

Some candidates misinterpreted the focus of the question and included other functions of eggs in their response, and many discussed the nutritional characteristics of eggs, most of which, although correct, could not be credited.

#### Question 14

This question was answered by the majority of candidates with varying degrees of depth. Responses were expected to be in an essay type style as the question stem stipulated a discussion and explanations.

Responses varied from a short paragraph or bullet point style lists through to the use of all given pages. In an essay it is not enough to simply write everything known about a subject there has to be some organisation and explanation, points identified need to be extended and illustrated with examples to show knowledge and understanding. Candidates who structured their answer, often with a plan, and included precise, relevant, well discussed responses covering all aspects of the question achieved better marks.

# FOOD AND NUTRITION

---

<p><b>Paper 6065/02</b> <b>Practical</b></p>
--

## Key messages

- Centres have clearly worked very hard to support candidates and return a successful practical test result despite the continuing challenges that education faces following the Covid pandemic.
- An updated version of the Practical Test Handbook, along with a new, detailed Scheme of Work and Delivery Guide is available from the Cambridge Assessment School Support Hub (see 'Qualifications' section). There is some evidence that Examiners are using the new 2020 handbook when marking the choices made by candidates.
- **All centres** must ensure they follow the instructions published by the University of Cambridge International Examinations, which is sent to all centres. These may vary from series to series and must be carefully checked each year by the centre to ensure compliance and consistency. Under normal circumstances, **five** of the eight published tests are to be used in each centre and that these are allocated to candidates in strict alphabetical order (by surname). Where centres used only three tests due to issues with interrupted learning over the past two years, this was accepted. Test numbers (not syllabus number) are to be written on planning sheets and mark sheets.
- Marks should be carefully totaled and transferred accurately to the summary sheet and MS1. The marks must be checked by another person for accuracy. In larger centres, where there are two or more Examiners, it is very important that the work is standardised and internally moderated prior to submission of marks and work for moderation. **Examiners should avoid awarding half marks** as this leads to over-marking and confusion when adding up the scores.
- Centres should ensure that they are using the up-to-date, electronic versions of documents for administration of the practical tests. These are available on the CAIE website with interactive summary mark sheets and working mark sheets that will automatically total the marks and scale correctly.
- Summary mark sheets, attendance register and MS1 should all be included with the sample work. Please also 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.
- Cambridge International have extended support for teachers of Food & Nutrition by introducing a new Discussion Forum on Teacher Support. The online discussion forums are a great way to keep up to date with the subject and to share ideas or upload resources. To see all the Discussion Forums available to Cambridge teachers, log in to Teacher Support and visit the Community pages.

## General comments

The majority of centres did carefully follow the specific instructions for this year, which reinstated the requirements of the test to five, rather than four dishes to be made. Most larger centres did allocate up to five of the tests, with a few centres choosing to use only three. Centres should check the specific instructions for each series, as these may vary, and contact Cambridge directly with any queries regarding the administration of the Practical Test.

Many centres presented work of a good standard where candidates have been very well supported enabling them to show their achievement through well directed teaching and submit interesting and varied work which meets the assessment criteria. However, in several centres, candidates often chose low skill dishes or ones which did not meet the requirements of the test. Candidates generally need more guidance and practice with interpreting given assignments and menu planning. This will enable them to accurately answer the demands of the test allocated whilst demonstrating sufficient skills in using a wide range of ingredients, manipulation of various mixtures, knowledge of consistencies and different cooking methods that make full and sensible use of the oven, grill and the top of the cooker. Candidates need to be able to apply their theoretical knowledge of nutritional requirements for specific groups. A significant issue is the lack of understanding of the

requirements of a 'balanced meal'. Candidates 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. In many cases, candidates are producing two main meals or a range of dishes that would not normally be served together in the same meal. Dishes to be served as a meal should complement each other.

Centres are reminded that only one set of preparation sheets should be issued to each candidate, with a maximum of two sets used. Marks must be reduced by 2 where candidates use more than two sets. Preparation sheets should be fastened together with staples or treasury tags in the correct order, along with the photographs. Placing the work inside individual plastic sleeves hinders the moderation process. Most centres are now using the interactive form to make scaling accurate but some of those that are still handwriting in the marks seem to be making errors in scaling. **Centres are reminded to ensure they are using the current administration resources for each series.** Most centres are providing good quality photographic evidence. A clear image of each labelled dish served is essential for the moderation process.

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 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 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 recipe sheet Examiners recorded a mark out of 4 for each dish chosen as well as a mark out of 5 for the ingredients listed. Also, time plans were marked using the recommended abbreviations (DT, W, M, SQ etc.). This enabled Moderators to give more accurate and consistent advice in the report to centres.

Too many low-skill dishes are being chosen as main dishes and then awarded high marks in all sections. There was evidence of significant over-marking in Method of Working sections, when the dishes produced were not of the highest quality or level of skill. Low-skilled dishes; or repeated main ingredients, skills and methods, or incorrect choices affect the marks for choices, method of working and final results. Some tests demonstrated a limited variety of skills, often with too much similar vegetable preparation. Closer attention to the syllabus would be beneficial and would enable the candidates to achieve higher marks.

### Comments on specific questions

#### Test 1

Several centres allocated this test. We saw many good examples of economic dishes being planned and made. Most candidates remembered to make the dishes uncomplicated and filling to suit the target group. The majority of candidates used the correct (creaming) method and made one large cake, although a few did make small cakes, which was a wrong choice. For a dish using rough puff pastry, most candidates did make their own pastry, using the correct recipe and method. We saw a few instances where bought pastry was used, which reduced the level of skill.

#### Test 2

This was a popular test with generally well-chosen dishes demonstrating high levels of skills for each ingredient chosen from the list. Most candidates identified the ingredient for each dish chosen on their recipe sheet. This is good practice and essential for moderation to be accurate and consistent. Errors were made where ingredients such as chicken or rice were used in more than one dish, and a few candidates used white flour instead of wholemeal.

#### Test 3

Many centres allocated this test and we saw a few good examples of menu planning for marathon runners. The best menus had dishes rich in carbohydrate and protein, while low in fat (especially saturated fat). Candidates had remembered to include a good supply of fruit and vegetables in their menus to provide dietary fibre as well as vitamins & minerals. For **part (b)**, the cold snacks often proved more difficult for candidates to plan. These needed to be substantial and highly nutritious for the athletes to replenish energy as well as repair muscles after training. Snacks such as sausage rolls or home-made bread rolls with suitable fillings were good savoury snacks, while banana loaves or carrot cakes/muffins were good sweet snacks.

#### Test 4

Where centres allocated this test, some candidates struggled to understand the requirement for low-calorie dishes for these sedentary workers. Dishes that were high in carbohydrates or fats were often planned. The candidates attaining higher marks demonstrated choices of light, nutritious dishes with plenty of vegetables and fruits, wholegrains and low-fat options. Portion sizes should also be checked here, as some candidates made quantities that are far too large. The dishes needed to be easily transportable and suitable for eating cold. Some candidates ignored this part of the instructions. For **part (b)**, a dish using a roux sauce was generally successful and many candidates chose a pasta dish to demonstrate this. Several candidates chose to steam a single item of food – e.g. steamed fish, steamed broccoli rather than using the steamer as an integral part of a chosen dish such as steamed sponge pudding and custard. Examiners should check that main ingredients used in **part (a)** are not repeated in **part (b)**.

#### Test 5

Some candidates with this test had planned menus that effectively demonstrated their knowledge of good sources of vitamin A. Too often, the relevant ingredient was incorrect (such as white fish) or provided little of the nutrient (such as a small quantity of carrot). The best menus included dishes with eggs or dairy produce, oily fish, liver or kidney along with a dish containing a good amount of yellow/orange vegetables. It would be good practice to encourage candidates to identify the main source of the vitamin alongside their choice on the recipe sheet. For **part (b)**, whisking method cake choices were generally correct and often well-decorated; biscuits could have been sweet or savoury.

#### Test 6

This was a popular choice. There were some good choices for the meal showing knowledge of the needs of elderly people. The best menus planned light, easy to digest meals with quantities for smaller appetites. A good supply of protein, with calcium and vitamin D particularly useful to this target group. Often, the menus were too high carbohydrates and fat.

Many candidates still struggle with the concept of a balanced meal and centres should try to focus on this aspect of menu planning during practical lessons. Referring to the handbook will help teachers and Examiners to understand the requirements of such test questions. For **part (b)**, candidates often successfully made a batch of small cakes and these needed to be neatly decorated to gain higher marks. The cold savoury dish sometimes proved more of a challenge with some poor choices of suitable dishes to take home that were either low skilled or not easily packed and transported.

#### Test 7

**Part (a)** required three hot savoury dishes that demonstrated the use of different parts of the cooker. Candidates needed to use the hob, the grill and the oven to cook skillful dishes. Some candidates used good practice in naming the relevant part of the cooker to be used when they wrote their choices. We did see evidence of repeated main ingredients and repeated methods of making, causing candidates to lose marks. It was acceptable for candidates to use more than one part of the oven for any dish, provided they did include the named part in the cooking process, for example, using the hob to make a roux sauce for a dish that was then browned under the grill. **Part (b)** was generally very well done, with suitable choices made for sweet yeast dish and there were many good examples of scones made.

#### Test 8

There were mixed results for this test. In some centres, candidates showed good knowledge of the sources of iron and vitamin C, as well as the dietary requirements of teenagers. Other centres had candidates with little nutritional knowledge. This may be due to the continuing difficulties in some areas with disruption to teaching timetables; however, candidates do need to be able to apply theoretical knowledge to their practical test planning. The best menus included iron sources such as red meat, offal, egg (yolks), pulses and green leafy vegetables. More imaginative menus included beetroot, dried fruit such as figs, dates or prunes; as well as sardines or shellfish. Dark chocolate or cocoa featured in some suitable desserts. Sources of vitamin C were easier to find, with relevant fruits and vegetables featuring in the dishes. For **part (b)**, it was good to see some candidates remembering to name the piece of equipment used and use it intelligently to produce a skillful dish. A few candidates made smoothies for this section, but as these are classed as a drink, they are not acceptable as a skillful dish. Once again, many well-shaped and risen scones were seen in photographs.

**Finally**, 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 dishes which demonstrate their knowledge of consistencies and cooking methods and which require a range of manipulative skills. Where meals are required, some candidates do seem to be able to make more suitable choices of accompaniments, although the skill level of these should be carefully monitored by Examiners.

Planning should include brief but accurate details of preparation and cooking methods, cooking times and oven temperatures. Methods need to be clearly stated to show their understanding of what these are and how they are used. For example, candidates should write 'make Swiss roll by the whisking method', 'make short crust pastry by rubbing-in method', 'make cheese sauce using roux method' and so on. This removes the need to write out lengthy instructions that take up too much space on the planning sheets.

Candidates should ideally indicate on their time plans 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'. They should be encouraged to develop the skill of 'dovetailing' when writing their time-plans. Timing of dishes should be more carefully considered with dishes requiring cooling made first and hot dishes planned later in the test.

