

FOOD AND NUTRITION

Paper 6065/12
Theory

Key messages

Candidates must read the questions carefully to ensure that they understand what is required. It is vital that candidates give reasons and explanations where necessary so that they can access as many marks as possible.

General comments

On the whole candidates answered the paper well and showed sound knowledge in most areas. Most candidates attempted to answer all the questions. Candidates need to ensure that answers are labelled correctly when using continuation sheets.

Comments on specific questions

Section A

Question 1

- (a) Candidates needed to state that a balanced diet contains **all** nutrients in the correct proportion for a mark. Some incorrect responses included 'contains nutrients' or 'some nutrients' and some candidates did mention all nutrients but did not include 'in the correct proportion.'
- (b) Obesity was the most common correct response. Many candidates mentioned diabetes but did not specify type 2 diabetes.

Question 2

- (a) (i) Many candidates stated that visible fat is easy to see on food and most were able to give two correct responses, usually fat on meat (or an example was allowed) and then butter or margarine were the most common other responses.
- (ii) Many candidates gave a correct answer for invisible fat. Correct examples commonly given were cakes and biscuits. Some candidates also mentioned eggs, avocados and seeds which were also accepted.
- (b) There were some good answers with many candidates gaining at least some of the available marks. Many mentioned hydrocarbon chain not being saturated with hydrogen atoms, double bonds and that unsaturated fats mainly come from plants and fish.
- (c) (i) (ii) Some candidates gained credit for both parts of this question. A common error was to mix the answers up.
- (d) Most candidates mentioned the melting of fat and many mentioned producing a blue haze and igniting.
- (e) (i) Many candidates mentioned rancidity.
- (ii) Only a few candidates mentioned antioxidants. Many candidates just mentioned preservatives.

- (f) There were some excellent answers to this question with many candidates giving at least three correct responses.
- (g) Again, there were some excellent responses to this question.

Question 3

Many candidates were able to name four correct herbs; coriander, parsley, basil and mint were the most common answers. A few candidates mentioned spices, which were not credited.

Question 4

There were some good responses with candidates mentioning additional cost, not being able to see the product, harm to the environment and that some materials cannot be recycled. Some candidates discussed the disadvantages of eating packaged food, for example 'they have lots of preservatives' and 'not healthy', which were not credited.

Section B

Question 5

- (a) Candidates mentioned that raw meat/eggs/milk needed to be heated to destroy harmful bacteria.
- (b) Only a minority of candidates could correctly answer this question. Candidates who gained credit usually mentioned red kidney beans. Other beans were accepted if they contain natural toxins, the same applied to types of shellfish and puffer fish.
- (c) Many candidates mentioned cooking potatoes and pasta. Some candidates mentioned that cooking meat made it more digestible.
- (d) Many candidates mentioned that cooking meat makes it look more attractive i.e. changing the colour from red to brown. Some candidates mentioned cooking cakes and bread. Quite a few candidates were confused by this question and mentioned decorating and garnishing foods to make them more attractive.
- (e) Candidates needed to mention a food that could be cooked in many ways e.g. potatoes can be fried, boiled or that eggs can be boiled, scrambled, fried. Many candidates just mentioned a food e.g. egg or potato without stating how the cooking method could add variety.

Question 6

- (a) Many candidates wrote about microwave cooking and not infra-red rays from a grill. Candidates who answered correctly gave descriptive points leading to a clear explanation.
- (b) Many candidates were able to give at least three advantages of using a microwave oven. Common correct answers included safe to use, saves money as uses less power, food is cooked quicker and less washing up as food can be served in the same dish. A few candidates mentioned healthier as no fat is used and that the kitchen stays cooler.
- (c) Many candidates were able to give at least four points to consider when buying a new microwave oven. Common correct responses included size linked to both size of family and space available in the kitchen, cost, brand, functions, colour, guarantee and power output.

Question 7

- (a) Many candidates mentioned more gluten or to make the pastry stretchy.
- (b) Some candidates gave some excellent methods for making flaky pastry, but many candidates rubbed in all the fat or made rough puff pastry.
- (c) There were many suggestions for types of shellfish with the most common responses being prawns, oysters, crab, lobster and mussels. One or two more obscure examples were given but were credited if correct.

- (d) Some candidates mentioned air being trapped in the layers as the pastry was being rolled and folded, water turning to steam and the gases expanding enabling the pastry to rise. A small number of candidates mentioned gluten sets the pastry.
- (e) Many candidates gave at least two correct responses which often included saving time, easy to use/less effort and useful for people who don't have the skill and consistent results.

Question 8

Many candidates mentioned hot, soapy water, not pouring oil down the sink, scraping the plates clean and changing the water. Some candidates did not read the question carefully and gave general points for hygiene in the kitchen e.g. wipe up spills, clean the floors, clean fridges regularly.

Section C

Question 9

- (a) The majority of candidates chose to this question. There were some detailed responses to this question with discussion of a variety of reasons as to how lifestyle can influence food choices. Many candidates mentioned vegetarianism, but some wrote in detail about the different types of vegetarian to the detriment of the rest of the answer, the same could be said when religion was mentioned albeit to a lesser extent. A few candidates discussed mainly nutritional facts for different groups of people. Better responses from candidates included how time can influence peoples choices e.g. working people may not have time to prepare meals and may rely on convenience foods or they may snack; how different working patterns or jobs can affect how people choose to eat; money available; different families including size of the family and the different needs of family members; different cultures; where people live; peer pressure and media influence.
- (b) For the first part of this question, candidates mentioned a variety of ways to preserve fruit in the home, including increasing shelf life, buying food when plentiful/in season, saving money, making products like jam and adding variety.

For the second part of the question, many different methods of preserving fish were given with candidates mentioning freezing, pickling, canning, drying, salting and smoking; one or two candidates mentioned MAP. Quite a few candidates were able to discuss the principles involved when using the different methods. Many candidates gave the correct temperature for freezing and were able to state what happened to bacteria; pickling was well discussed with candidates mentioning that bacteria cannot multiply in acidic conditions; heat and sealing were both mentioned for canning. Candidates also mentioned osmosis for salting and the removal of moisture for drying and how both conditions affect bacteria. Occasionally, candidates gave lengthy explanations of how you would prepare the fish before preserving or putting the fish in a cool place e.g. in the fridge; these responses did not answer the question and were not given credit.

FOOD AND NUTRITION

Paper 6065/13
Theory

Key messages

Candidates must read the questions carefully to ensure that they understand what is required. It is vital that candidates give reasons and explanations where necessary so that they can access as many marks as possible.

General comments

On the whole candidates answered the paper well but there appeared to be some gaps in their knowledge. Most candidates attempted to answer all the questions. Candidates need to ensure that answers are labelled correctly when using continuation sheets.

Comments on specific questions

Section A

Question 1

- (a) Most candidates gave a correct response.
- (b) Most candidates mentioned kwashiorkor or marasmus. One or two mentioned other diseases e.g. rickets or scurvy which were not creditworthy.

Question 2

- (a) (i) Most candidates gave at least one correct answer.
 - (ii) Many candidates mentioned amino acids.
 - (iii) Some good responses as many candidates were able to name two enzymes.
 - (iv) Many candidates gave a correct response, although a few candidates mentioned duodenum or stomach which were not creditworthy.
- (b) (i) Many candidates gave a correct explanation.
 - (ii) In most cases, the benefit of protein complementation was answered correctly, although a few candidates just mentioned that it was good for vegetarians without explaining why.
 - (iii) Some good examples were given e.g. beans on toast and lentil soup with bread, but some candidates just gave a list of foods which supplied LBV protein.

Question 3

- (a) There were quite a few correct responses but many candidates mentioned double bonds which was not creditworthy.
- (b) Most candidates were able to list at least three different sources, the most common answers were bread, rice, pasta and potatoes.

- (c) Some good answers with many candidates giving a full account of the gelatinisation of starch.
- (d) Many candidates mentioned absorbing water, increasing satiety, softening faeces and stimulating peristalsis.
- (e) Candidates mentioned diarrhoea, bloating and one or two mentioned IBS and the inability to absorb nutrients.
- (f) Many candidates were able to mention amylase, fewer mentioned maltose.

Question 4

- (a) Answers needed to show an understanding of fluid intake and loss of water; it was evident that some candidates understood this, but some candidates stated 'drinking enough everyday' or 'to ensure that there is a balance.' Neither of these responses answered the question.
- (b) Most candidates were able to list at least two effects of an inadequate intake of water. The most common responses were constipation and dehydration. Some candidates mentioned headaches, dry skin and dizziness.
- (c) Candidates commonly mentioned lactating mothers, manual workers, children and athletes. Many candidates were able to give a correct reason for each group of people.

Section B

Question 5

- (a) Most candidates gave two different methods.
- (b) Candidates did not seem very sure about the melting method of making biscuits, often the sugar was left out of the melting process and the dough was rolled out, instead of being rolled into balls.
- (c) Most candidates gave the correct response of bicarbonate of soda.

Question 6

- (a) Some candidates were able to give good examples for this question; however some candidates appeared to be confused about different types of vegetables. Quite a few candidates gave beetroot, carrots and turnips as correct examples of a root vegetable, but some mentioned potatoes, which is incorrect. Potatoes was the most common correct response for examples of a tuber. Candidates mainly mentioned tomatoes as the fruit of a plant, but many candidates gave the names of fruits e.g. apples or oranges. Many candidates mentioned peas for a pod vegetable, but this was not credited as we tend not to eat the pod. The main correct answer for bulb was onions.
- (b) (i) Many candidates mentioned that fresh vegetables can be expensive and that they have a short shelf life
- (ii) Some candidates mentioned nutrient loss, but this needed to be more specific as in 'loss of water soluble vitamins.' Some candidates also mentioned additives.
- (c) There was a variety of responses with common answers including no wilting, no decay, organic and whether the fresh vegetables were locally grown.
- (d) (i) Most candidates were able to give at least two ways of conserving the nutritional value of the vegetables and mentioned using a sharp knife, tearing and preparing just before cooking.
- (ii) Most candidates were able to give at least two points for conserving nutritional value when cooking vegetables and mentioned lid on the pan, not overcooking, using the cooking liquid in a sauce and steam or stir fry.

Question 7

- (a) Most candidates gave at least some factors with a reason for the choosing of a freezer. Candidates mainly considered size in relation to space in the kitchen as well as family size. Money available was another consideration as well as energy efficiency.
- (b) Only a minority of candidates were able to give the correct temperature.
- (c) Most candidates mentioned that freezing slows down bacterial growth. No marks were awarded for stating that bacteria are killed.
- (d) Many candidates mentioned 'to prevent loss of nutrients' which was not credited. One or two candidates mentioned retaining colour.
- (e) (i) Some candidates stated 'to ensure that the chicken was cooked thoroughly' but many mentioned 'cutting down on cooking time' which was not credited.
- (ii) Candidates found this part challenging and mainly focused on slowing down bacterial growth instead of the concept of fast freezing to limit cell damage.
- (iii) The focus seemed to be on preventing cross contamination instead of preventing freezer burn or preventing food becoming loose.
- (iv) Many candidates were able to answer this question correctly.
- (v) Most candidates mentioned that there could be more bacteria in the food.
- (f) Very few candidates were able to give sufficient detail in their response to this question with many stating that that one star means storing food for a short time and three stars means that food could be stored for longer.

Section C

Question 8

- (a) This question was marginally more popular than (b). Many candidates who answered this question showed a good knowledge of why more people are choosing a vegetarian diet. The main points that were considered were moral beliefs e.g. against killing animals for food and ethical reasons e.g. disagreeing with the way animals are reared and the belief that the diet is healthier as there is less saturated fat. Environmental issues were also mentioned as in the uneconomical use of land or the production of methane from cows. Peer pressure, advertising and economy were also mentioned. A few candidates gave two or three reasons as to why someone may choose to follow a vegetarian diet and then went on to discuss the different types of vegetarian and nutrients in detail. Unfortunately, in these cases the majority of the answer given could not be given credit as it did not answer the question.
- (b) There were some excellent answers to this question with many candidates discussing nutritional needs of manual workers in detail. The points made were focused on the specific needs of a manual worker and included protein for repair, calcium for bone maintenance, iron for oxygen transport, vitamin C for the absorption of iron, vitamin B group for the release of energy, sufficient calories for energy and water to prevent dehydration.

For economical cooking, candidates mentioned quick ways of cooking e.g. microwaving foods, using steamers cooking a lot of food at once, lids on pans to retain heat, turn off heat after cooking and not overcooking food.

FOOD AND NUTRITION

Paper 6065/02
Practical

Key messages

- The inclusion of photographs as supporting evidence is compulsory. All dishes must be clearly visible and labelled in the photographs. Candidates are not required to appear. The serving of dishes should be appropriate to the individual test.
- All centres must ensure they are familiar with the Confidential Instructions for this component. These instructions clearly state that 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). Test numbers (not syllabus number) are to be written on planning sheets and mark sheets.
- Centres should ensure that they are using the up-to-date, electronic versions of documents for administration of the practical tests. Summary mark sheets, the attendance register and MS1 should all be included with the sample of 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 practical examiner to report any difficulties that may have occurred during the test.
- In larger centres, where there are two or more examiners, it is very important that the work is internally moderated prior to submission of marks and work for moderation.
- For each examination session, centres should refer to the updated version of the Practical Test Handbook for guidance on marking the practical tests and download and use the most recent forms. When downloaded, the interactive summary mark sheets and working mark sheets will automatically total the marks and scale correctly.
- 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

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, and knowledge of 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 and should also ensure they understand 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 and marks reduced where candidates use extra sheets. Preparation sheets should be fastened together with staples or treasury tags in the correct order, along with the photographs. Marks should be carefully totalled, scaled and transferred to the summary sheet. The marks must be checked by another person for accuracy. Where half marks appear in the final total, these should be rounded down, not up. Centres that have been using the interactive form have been accurate with scaling but some of those that are still handwriting in the marks need to ensure they use the scaling table in the Practical Test Handbook.

It is a requirement that all candidates' work must show evidence of marking, with annotation clearly written on the work and comments given on the mark sheet to evidence how and where marks have been awarded or reduced. Many examiners did not give sufficient detail in their annotations – some did not provide any commentary at all – which makes the moderation process more difficult.

Candidates should indicate on their choices section which part of the test each dish is being made for. 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. All of the planning should be clearly and concisely annotated using the key provided in the Handbook.

Working mark sheets need detailed comments about the candidates' method of working during the test and the final results. Many examiners included comments such as 'good', 'palatable', 'edible' or 'nice'; these terms do not convey useful information as to the actual texture, aroma, flavour or appearance of the food. Terminology to describe the finished dishes must be factual and descriptive.

Too many low-skill dishes are being chosen as main dishes and then awarded high marks in all sections. Low-skilled 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

This was very popular with most centres. The best candidates chose a well-balanced meal, with an appropriate supply of carbohydrates, protein, calcium and iron that were suitable for teen boys. A well balanced meal may include a main dish plus a starter or dessert OR may consist of two complementary skilled dishes such as two types of curry, which would normally be served together in the same meal. Two suitable accompaniments to any of the dishes are required to complete the meal. Whilst starchy carbohydrates are an essential part of any balanced diet, some candidates chose very calorific meals that were too heavy in carbohydrates and would not have been suitable, even for this group. For some, the meals were too high in protein. For part (b) there were some good examples of savoury snacks and imaginative drinks made. Most candidates made the specified cake using the creaming method, although some candidates still appear confused over these culinary terms. A creamed method cake must have the sugar and fat thoroughly creamed together first, before adding the egg and then folding in the flour and flavourings. All cakes, large or small, must be neatly decorated to gain full marks.

Test 2

The picnic was another popular test and the best responses were those where the dishes chosen were easily transportable, did not require re-heating and provided a good variety of flavours, colours and textures. In many cases, the finished dishes were displayed with an attractive picnic theme. In a few cases, soup had been selected for the picnic and then correctly packed in thermos flasks to retain heat. Where a selection of dishes is stipulated in a test, it is expected that candidates will provide more savoury than sweet choices, as this better represents a balanced diet.

Test 3

Several centres selected this test and some candidates understood the requirement for a light, easily digestible meal with a good supply of protein, vitamins and minerals. Some meals were planned to have too high fat or carbohydrate content, making them unpalatable for delicate appetites. For part (b) there were some good examples of fatless sponges, Swiss rolls or Genoise sponges made; although again, some centres need to re-visit culinary terminology to ensure that they are not accepting all-in-one cakes made by using an electric whisk instead. It was pleasing to see a variety of sweet and savoury scones that were well-risen and beautifully presented.

Test 4

Some very appealing arrays of skilful snacks were presented on attractively themed tables in response to this test. Many candidates had thought carefully about ease of carrying and consuming the finished dishes and good examples of hand-held snacks were evident.

Test 5

This test often proved difficult for candidates to answer, with many choosing low skilled or very similar dishes that repeated main ingredients such as beef or chicken. Some candidates made dishes that required shallow, rather than deep-frying, or broiling instead of braising which resulted in a wrong choice. In many cases, where candidates selected dishes to be grilled or steamed, they chose lower skilled dishes which did affect marks throughout. For **(b)**, mainly correct choices were made for the small cakes although for full marks all cakes must be skilfully decorated; some candidates mistakenly made desserts, such as mousse, instead. The batch of biscuits was generally well done, with a good variety of methods and types of biscuits presented, although candidates should take care **not** to repeat the creaming method if used for the cakes.

Test 6

This was a popular test, although it was very rare to see any candidates using millet. The best candidates chose dishes where they had considered the variety of final dishes required and produced a good range of savoury and sweet dishes for **(a)**. In some cases, candidates had repeated cheese in **(a)**, whereas they needed to use cheese for the hot dish in **(b)**. Many chose to make a roux sauce-based dish for this and some produced home-made pasta with it, thereby adding an excellent range of skills to the task. Many candidates chose lemon tart, sponge fruit flan or similar dishes to showcase the eggs; cheesecakes for this section of the task were a mistake, as they repeated the cheese.

Test 7

Where centres allocated this test, candidates struggled to understand the requirement for a low-calorie meal for sedentary office workers. For **(b)**, many successful roux sauce-based dishes were made, although not all understood the term *melting method* and simply demonstrated this by melting some chocolate to include in a dish. Clarification is needed for this method which is specified in the syllabus. Dishes made by the melting method generally contain fat, sugar and syrup that are melted together before adding the dry ingredients and being shaped. Plain flapjacks are a low-skilled response to this and some candidates selected melting moments which are in fact made by the creaming method.

Test 8

This test was designed to test the candidates' knowledge of suitable protein sources for **vegans**; it was a not popular choice. Some candidates made suitable choices for vegans, although they must remember not to include dairy, fish, stock made from meat or chicken and gelatin. The best choices included a good selection of complementary LBV proteins, tofu or other soya ingredients, pulses and grains used in imaginative ways. Few candidates recognised the value of nuts in the vegan diet, although some had used modern ingredients, such as vegan 'cheese'. There was a tendency to opt for carbohydrate-based dishes, whereas the addition of a complex salad plus home-made dressing would have varied the skills and provided colour as well as nutritional balance. For **(b)**, many successful bread-based dishes such as pizza, calzone, stuffed focaccia or soup and bread were produced and the fruity sweet dishes were often most attractively made and presented.

Finally, many candidates had clearly tackled their practical tests with enjoyment, enthusiasm and often a high degree of practical skill. 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, 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. For example while one dish is cooking, another is being prepared or decorated.

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Timing of dishes should be more carefully considered with dishes requiring cooling made first and hot dishes planned later in the test.