

# FOOD AND NUTRITION

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Paper 0648/11  
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. There seemed to be sufficient time for candidates to answer the paper. It is helpful if candidates ensure that answers are labelled correctly when using continuation sheets.

## **Comments on specific questions**

### ***Section A***

#### **Question 1**

Many candidates gave a correct response.

#### **Question 2**

- (a) Many candidates were able to gain three marks for the functions of protein, usually growth, repair and maintenance.
- (b) This question was well answered by many candidates.

#### **Question 3**

Most candidates gave at least four correct responses and showed a sound knowledge of the functions of vitamins and minerals. There were a few repeats with candidates giving calcium for parts (c) and (e).

#### **Question 4**

There were some very good responses with many candidates discussing the villi and absorption; one or two candidates also drew a diagram to illustrate their answer. However, some candidates discussed digestion in the ileum rather than describing its structure and function.

#### **Question 5**

- (a) There were many correct responses with many candidates mentioning hypertension, stroke or heart disease.
- (b) Most candidates were able to list at least two examples of herbs.

### Question 6

- (a) Candidates mentioned that stir-frying is quicker and healthier as less oil is used. Some also mentioned more energy efficient, nice aroma and flavour is developed.
- (b) Many candidates mentioned not leaving the pan unattended, not too much oil and pan handle facing away from the edge.

### Question 7

- (a) Several candidates mentioned plaque forming, sugar turning to acid and tooth enamel dissolving.
- (b) Many candidates incorrectly considered cakes to be confectionery. When using sugar in aeration of cakes, the method of preparation must be specified since it is not relevant to all methods. For decoration some candidates just mentioned cakes – a method of decorating the cake was needed to gain credit. Many candidates mentioned doughnuts for glazing but this is actually icing and not a glaze. Improving colour needed to be qualified by candidates mentioning sugar caramelising or the use of brown sugar.

## Section B

### Question 8

- (a) Most candidates mentioned energy and nutrients. Some mentioned that it kick-starts the metabolism and helps in avoiding snacking. A few candidates mentioned helping concentration levels.
- (b)(i) Most candidates were able to explain coagulation.
- (b)(ii) Many candidates showed a good knowledge of dextrinisation.
- (b)(iii)/(vi) Many candidates mentioned vitamin C and were able to give at least two good sources. There needed to be four different sources as citrus fruit was only allowed once as were green vegetables.
- (b)(v) Most candidates gave gluten intolerance.
- (c) There were some good responses but a few candidates were unclear about binding and gave responses such as cake mixtures and quiche.
- (d) Many candidates were able to give at least two valid points with many mentioning storing eggs in the refrigerator, away from strong smelling foods, pointed end down and do not wash. Reasons had to be given to access full marks.

### Question 9

- (a) Few candidates gave a correct response. Many candidates mentioned melting the sugar in a pan, adding the cornflour and then adding the milk (very similar to a roux sauce) and then blending to get rid of any lumps. It is clear that blended sauces is an area that would benefit from further teaching.
- (b) Many candidates were able to give a good account of gelatinisation.

### Question 10

- (a) There were many good responses with candidates giving at least two correct conditions necessary for the growth of microorganisms, generally food, warmth and moisture. A few candidates mentioned time and correct pH.
- (b) There were some good responses. Candidates need to be able to describe the need for good personal hygiene when preparing food and to distinguish it from general kitchen hygiene when writing a response to the question.

- (c) This was generally well answered with candidates mentioning recycling, composting and emptying bins regularly.

**Section C**

**Question 11**

- (a) There were some good responses with many candidates mentioning less effort, quick, easy, limited skills, taste better, cheaper than making meal from scratch, less wastage, easily accessible, food from other countries and information on packaged food. Some candidates went on to discuss disadvantages; they must read the questions carefully as the question only asked for advantages.
- (b) Candidates discussed consuming less fat and less sugar and ways in which this could be achieved for example replacing red meat with chicken, removing visible fat from food, steam rather than boil, eating less chocolate, more fruit and vegetables and reducing convenience foods. Most candidates were able to discuss osteoporosis mentioning calcium, vitamin D and a few candidates mentioned phosphorus – they were able to state why these nutrients were needed and were able to give sources – many mentioned sunlight for vitamin D. Vitamin K was rarely mentioned.

# FOOD AND NUTRITION

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Paper 0648/12  
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. Candidates must read the questions and the instructions on the front of the question paper carefully to ensure that they answer the number of questions specified in each section.

## 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. There seemed to be sufficient time for candidates to answer the paper. It is helpful if candidates ensure that answers are labelled correctly when using continuation sheets.

## Comments on specific questions

### **Section A**

#### **Question 1**

Candidates need to ensure that they understand the meaning of the term DRV (Dietary Reference Value) and its purpose.

#### **Question 2**

Many candidates gave two correct responses for **2(a)**. A lot of candidates mentioned obesity; when two responses were similar, e.g. high cholesterol and heart disease, credit was awarded once. There were many correct responses to **2(b)**.

#### **Question 3**

- (a) This was generally answered well. Candidates needed to specify the correct type of milk in order to be awarded full credit.
- (b) This was answered well with many candidates mentioning soya milk and no lactose.
- (c) This was answered well in most cases. To access all the available credit, candidates needed to specify different functions for each nutrient.
- (d) This was generally well answered. Most candidates gave animal sources of iron, candidates who stated meat needed to specify red meat to be awarded credit.
- (f) Candidates should ensure that they are familiar with the heat treatments used to produce different types of milk.
- (g) Many candidates were able to list four milk products, although a few candidates misunderstood the question and listed four different types of milk.

- (h)(i) Some candidates gave good accounts for this part of the question and candidates who discussed heat causing the coagulation of protein and its effects gained credit. More specific detail was required than reference to transference of heat to be awarded credit.
- (ii) Many candidates gave at least two pieces of advice for storing milk. Candidates who also offered reasons were able to access full credit.

### **Section B**

#### **Question 4**

- (a) There were many correct responses to this question.
- (b)(i) In most cases candidates gave the correct response.
- (b)(ii) There were many correct responses with most candidates gaining at least two marks, these were usually covering with water and lemon juice. One or two candidates mentioned blanching.
- (c) Candidates were able to give at least two advantages and disadvantages of using ready prepared vegetables. Advantages were usually easier, quicker, use out of season and useful in emergencies. Disadvantages were more expensive and may contain additives.
- (d) There were some excellent responses with many candidates mentioning different types of pulses, nuts and cereals.
- (e)(i) Candidates were often able to give two correct responses, generally prolong shelf life and prevents growth of microorganisms. One or two candidates mentioned preventing rancidity.
- (e)(ii) Many candidates gave repetitive answers to this question with answers such as 'better flavour' and 'more flavour'. Few candidates were able to gain full credit.
- (f) Many candidates were able to give at least three relevant factors to consider when choosing a new blender; most common responses were cost, colour, capacity relating to size of the family, size, relating to the amount of room in the kitchen and reliable brand. Candidates who gave reasons were able to gain full credit.
- (g) Many candidates were able to state at least two safety precautions when using electrical equipment points including not having wet hands, making sure that there were no trailing flexes and keeping hands away from beaters and blades.

#### **Question 5**

- (a) Many candidates mentioned that the cake would be sweeter, may sink and a crust might form.
- (b) Many candidates did not score highly as they tended to discuss the handling of the pastry during making when the question asked for how the proportion of fat affects the finished result. Marks were generally awarded for greasy pastry.
- (c) Many candidates mentioned that the scones would rise too much and some mentioned flavour. In order to be awarded full credit the response had to be that the flavour was soapy.

#### **Question 6**

- (a) This question was generally well answered with many candidates mentioning that strong flour contains more gluten and produces a stretchier dough.
- (b) Generally, well answered with candidates mentioning that wholemeal flour contains more NSP and has more flavour. A comparison was needed in both parts in order to gain full credit.

**Section C**

**Question 7**

- (a) Candidates who answered this question mentioned eating less sugar and fat and were able to give relevant reasons. They were able to discuss how changes in the diet would help people to manage Type 2 diabetes and obesity e.g. cutting out sugar and fat and replacing with fruit and vegetables, low fat alternatives, less red meat, less takeaways, cooking meals at home so that people know what they contain, not snacking or snacking on fruit and vegetables, no sugar in drinks and use sweeteners. A small number of candidates mentioned nutritional tools. Some answers were repetitive and many candidates gave a detailed discussion of the merits of exercise when the question asked for dietary advice. Also, many candidates discussed the different types of diabetes and went to great lengths to discuss what might happen if the condition was left unchecked.
- (b) Many candidates discussed in detail the reasons for following a vegetarian diet and the different types of vegetarian, which the question did not ask for. Candidates must read the questions to ensure that they give the relevant information required by the question. Some candidates mentioned that a vegetarian diet is cheaper, high in NSP, contains less saturated fat so less chance of heart disease and some candidates mentioned that it is better for the environment. Many candidates were able to discuss how a lacto-vegetarian could ensure that they had enough protein by mentioning suitable sources of HBV protein and discussing protein complementation. Many candidates were able to give a good source of iron and few candidates mentioned the role of vitamin C in the absorption of iron.

# FOOD AND NUTRITION

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Paper 0648/13  
Theory

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- (c) This was generally well answered with candidates mentioning recycling, composting and emptying bins regularly.

**Section C**

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# FOOD AND NUTRITION

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Paper 0648/02  
Practical

## Key messages

Cambridge International has extended support for teachers of Food and 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.

Centres must ensure they are familiar with the instructions published by Cambridge International; five of the eight published tests are to be used in each centre and these are to be allocated to candidates in strict alphabetical order (by surname).

Centres should ensure that they are using the most up-to-date documents for administration and marking of the practical tests.

The inclusion of photographs as supporting evidence is now required; most centres provided one or two good quality, clear pictures of the candidates' finished dishes and table setting. All dishes must be clearly visible and labelled in the photographs. The serving of dishes should be appropriate to the test with suitable simple table decoration.

## 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. Candidates should choose high skill dishes which meet the requirements of the test. 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 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. Candidates generally need more guidance and practice with interpreting given assignments and menu planning.

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. Candidates should indicate on their choices section for which part of the test each dish is being made.

Working mark sheets need detailed comments about the candidates' method of working during the test and the final results. Terminology to describe the finished dishes must be factual and descriptive.

To enable candidates to achieve the greatest credit they need to choose high skill dishes as main dishes. Close attention to the syllabus would be beneficial.

## Comments on specific questions

### Test 1

The candidates who performed well chose a well-balanced meal, rich in protein, calcium and iron, which was suitable for elderly people. Whilst starchy carbohydrates are an essential part of any balanced diet, very calorific meals that were too heavy in carbohydrates would not have been suitable for this group. For (b) there were some good examples of dishes made using the stipulated ingredients.

## Test 2

The best responses were those where the dishes chosen were easily transportable, did not require re-heating and provided the typical higher calorie content required for manual workers. 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. For **(b)**, many candidates chose a suitable hot pasta dish, with stronger candidates making their own pasta. Choices for the chocolate dessert varied in skill level; the difference between a dessert and a cake needs to be recognised.

## Test 3

This test was designed to test the candidates' knowledge of suitable protein sources for vegetarians. It was a popular choice with many centres. Most candidates made suitable choices for vegetarians, although they must remember not to include 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, eggs and/or dairy food. Candidates need to recognise the value of nuts in the vegetarian diet; choosing three cheese-based dishes did not allow credit to be given for a different type of dish. There was a tendency to opt for carbohydrate-based dishes; the addition of a complex salad plus home-made dressing would have varied the skills and provided colour as well as nutritional balance. Many candidates weighted their choices in favour of sweet dishes. When making 'biscuits by the MELTING method', candidates need to be clear about what is required for this method, which is specified in the syllabus. A 'decorated cake' was also required. Some excellent cakes were seen that demonstrated good piping or icing skills.

## Test 4

Dishes using 'dried fruit' were correctly chosen in most cases and fruit (raisins) scones were popular. Candidates should be encouraged to demonstrate a wide range of high level skills in order to gain high credit across the practical test. The fish dishes tended to be lower skilled as did the dishes containing lentils.

## Test 5

For candidates to perform well they needed to choose high skilled or varied dishes that did not repeat ingredients or methods. Candidates could have chosen dishes that required steaming, stewing, simmering, pressure-cooking, shallow or deep-frying. Home-made pasta, batters, pudding mixtures, doughs or pastries suitable for these cooking methods would have shown a wide range of skills. For **(b)**, most candidates chose the correct method for a 'cake by the creaming method'. For full credit to be awarded, the cake must be skillfully decorated. The preparation of a 'batch of scones' was performed well.

## Test 6

Mainly suitable choices for each named piece of equipment were made by candidates who undertook this test. The strongest candidates chose dishes where the specified equipment was used in a skilled way to prepare ingredients for a skilled dish. Candidates who demonstrated the use of a pressure cooker showed a valuable skill where fuel and time economy is required. Whilst a drink can be chosen to demonstrate the use of a blender, it shows limited skills.

## Test 7

Candidates who carried out this test demonstrated excellent application of theoretical knowledge by planning gluten-free meals successfully; also avoiding "hidden" sources of gluten, for example in baking powder. Some continued the gluten-free theme into **(b)**, making suitable cookies and batter dishes, although this was not necessarily required.

## Test 8

The strongest candidates had thought carefully about what constitutes a 'buffet' and delivered an array of lighter dishes that carefully complemented each other and were easily or individually portioned, served and eaten. Finger-foods work particularly well for a buffet, where it is expected that guests will take a small portion of each dish onto their plate and may be required to eat whilst standing or without cutlery. Dishes requiring hot service or those with very liquid sauces are not suitable choices for this type of test.

**Finally**, candidates in all centres 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 accurate. Candidates should be encouraged to make 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 suitable choices of accompaniments.

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 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.

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

