

# FOOD AND NUTRITION

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Paper 0648/01

Theory

## Key Messages

- All questions should be read carefully.
- Full explanations should be included, where required. For example, questions which require discussion should include a number of different points, with detailed reasoning and supporting examples.
- Candidates should carefully manage the time they spend on each of **Sections A, B and C**, so that questions with more marks are given more time.

## General Comments

In general, candidates had sufficient time to answer the required number of questions but it is important for candidates to look carefully at the mark allocation to help decide how much information to provide in their responses.

Candidates are advised to read the questions carefully and then plan their answers, particularly in **Section C**.

## Comments on Specific Questions

### *Section A*

#### **Question 1**

- (a) Most candidates gave the correct response to the question.
- (b) Many candidates gave four correct responses. Some candidates gave the incorrect response of cereals.
- (c) (i) Most candidates were awarded at least two marks for this question. The most common responses included: absorption of water; production of soft and bulky faeces; easier excretion; and prevention of relevant diseases.
- (c) (ii) This question was not very well answered. Some candidates mentioned diarrhoea and a few mentioned that transit time is too short, so preventing nutrient absorption.

#### **Question 2**

- (a) There were some good responses to this question with many candidates gaining full marks. Some candidates did not read the question carefully and made reference to meat in their answers.
- (b) Most candidates were able to give a correct explanation of the term complementary proteins. The most common example given was baked beans on wholemeal toast.
- (c) (i) Many candidates mentioned calcium and iodine and their respective functions. Some candidates mentioned phosphorus, as well as calcium, but gave the same function as calcium; the question required different functions to be given in each case.

A few candidates mentioned other minerals such as sodium and fluorine. Some candidates did not read the question carefully and made reference to iron in their answers. A minority of candidates mentioned vitamins instead of minerals.

- (ii) A well-answered question with many correct responses.
- (d) Approximately two-thirds of candidates gave the correct response to this question.
- (e) The most common responses to this question were: to kill bacteria; to make the meat easier to chew; to improve colour; and to improve flavour.
- (f) The majority of candidates were able to give the correct method of heat transfer. Many of the descriptions of the method of heat transfer lacked clarity.
- (g) The most popular answers were: mincing or bashing the meat; the use of enzymes; marinating; and pressure cooking or stewing. There was a high level of repetition in the responses with many candidates not giving four different ways of tenderising tough cuts of meat.

### Question 3

- (a) There were many correct responses to this question.
- (b) Most candidates gave three correct responses to this question with the most common responses including: for insulation; to protect vital organs; and to provide a concentrated source of energy.
- (c) Only a minority of candidates gave the correct responses.
- (d) There were very few correct responses to this question.
- (e) Most candidates gave the correct response to this question.

### Section B

#### Question 4

- (a) This was a difficult question for candidates and very few gave correct responses. Some candidates mentioned dextrinisation and a minority were able to describe the correct cause of maillard browning.
- (b) Many candidates gave four correct methods for making the baked products and most candidates were able to give at least one correct method.
- (c) Many correct responses were seen to this question. Some candidates were confused by the term 'gingerbread' and gave yeast as their response.
- (d) Many candidates mentioned storing the cake in an airtight container or in a cool and dry place. The response 'cover the cake' was insufficient.
- (e) Many candidates correctly mentioned that the cake would become dry or stale.

#### Question 5

- (a) Many candidates stated that 'cheese melts' but the more precise response of 'fat melts' was required. Some candidates correctly mentioned that protein coagulates and that the cheese becomes stringy or indigestible with continued heating.
- (b) The most common responses included that yoghurt contains protein and calcium, and that yoghurt can provide bacteria which benefit digestion.
- (c) Many methods of preservation were discussed with freezing the most commonly chosen. Some candidates mentioned salting, drying and canning and described these processes correctly. A few candidates gave detailed accounts of how fish should be prepared prior to preserving; this was not necessary and was not awarded credit.
- (d) Many candidates mentioned a list of ingredients and use-by date. Many candidates also mentioned information which is commonly found on packaging, but which is not a legal requirement; credit was not awarded in these cases.

- (e) Most responses provided by candidates were too vague; the answer needed to state or imply that convenience foods are partly or totally prepared by the manufacturer. Some candidates gave a relevant example.

#### Question 6

- (a) (i) There were some good answers to this question with many candidates effectively explaining two or three risks, commonly focusing on obesity, CHD and cholesterol.
- (ii) Many candidates correctly discussed factors such as using low-fat products; avoiding fried foods; and using white meat instead of red meat.
- (b) (i) Many candidates gave two correct nutrients.
- (ii) There were many good responses to this question, but some candidates limited the credit available to them because they did not provide correct examples.
- (iii) Most candidates stated that protein in the egg coagulates. Some candidates were able to give the correct temperatures for the coagulation and some were able to give a good description of the process.
- (iv) Most candidates mentioned testing the egg in salted water. Some candidates were not awarded full credit because they did not describe the results which they would expect to observe.

#### Section C

#### Question 7

- (a) This question was more popular than **Question 7(b)**.

The section on 'storing' was discussed in depth by candidates, although some points pertaining to cross contamination lacked key details. Many aspects of personal hygiene were mentioned under the heading of 'preparation'. The section on 'cooking' was discussed in less detail.

Contamination by bacteria was the most common kind of contamination discussed with very few candidates mentioning yeasts, moulds or contamination by chemicals. Some candidates discussed methods of preservation in great detail which was not credited.

- (b) Candidates who gave general points did not score highly; it was necessary to apply the nutritional points explicitly to both convalescents and athletes. Some candidates deviated into discussing an incorrect group of people, such as office workers, students or young children; irrelevant points were not awarded credit.

# FOOD AND NUTRITION

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Paper 0648/02

Practical

## Key Messages

- Candidates should read the test questions carefully so that appropriate dishes are chosen to answer the question set.
- A range of ingredients and skills and a variety of cooking methods should be used without repetition.
- Candidates should avoid making low-skilled dishes.
- Planning should include details of methods, cooking times and oven temperatures.
- Time plans should be written in 'real' time; candidates should not simply write out one method after another.

## General Comments

All Centres must ensure they are familiar with the instructions published by Cambridge International Examinations and sent to all Centres. These instructions clearly state that **five** of the published **eight** tests are to be used by each Centre and that they must be allocated to candidates in strict alphabetical order (by surname).

Many Centres presented work which was of a pleasing standard. Candidates answered the majority of the test questions well, with a variety of suitable and skilful dishes. Most Preparation Sheets were completed neatly and correctly and were fastened together in the correct order. Fewer candidates used several sets of Preparation Sheets for this session; only one set of Preparation Sheets should be used. On a few occasions, marks were not totalled correctly or were not transferred correctly onto the Practical Test Working Mark Sheets. All additions and transfers of marks should be checked by another person before the work is forwarded to Cambridge.

All candidates' work must show evidence of marking, and annotation must be included with the work to give a clear explanation of how and where marks have been awarded. Many Examiners failed to annotate candidates' Preparation Sheets and did not provide evidence to show how the marks for each section had been awarded.

Annotation is particularly important in the 'Method of working' and 'Quality/Results' sections; these parts of the work are not seen by the Moderator and therefore the marks can only be verified if there is a clear explanation of how the Practical Test progressed and how the final dishes looked and tasted when they were served. The comments should be specific to each individual dish and each individual candidate. At the present time photographs are not compulsory; however, photographic evidence can help support the marks awarded. From 2017, the inclusion of **photographs** as further supporting evidence will be compulsory.

It is important that Examiners study the questions and the mark scheme carefully before any marks are awarded to ensure that the test questions are answered correctly. In many cases, candidates failed to include accompaniments with their two-course meals, yet received full credit. The mark scheme must be strictly adhered to and marks must not be adjusted in any way to exceed the marks indicated on the mark scheme. In line with the guidance available in the *Practical Test Training Handbook (2015)*, no half marks should be awarded in the Practical Test.

Some candidates chose dishes that did not answer the test question, e.g. inappropriate cakes or biscuits made instead of desserts for the two-course meals. When initial incorrect choices are made or the dishes chosen are low-skilled, the maximum mark available in the 'Quality/Results' section must be reduced accordingly. Further examples of this were:

- **Question 2** – meals were often too high in fat and carbohydrates for two office workers;
- **Question 4** – a combination of dishes that could be eaten with fingers and those that would require a knife and fork to eat them were prepared for the birthday party;
- **Question 5** – meals did not contain enough protein or carbohydrates for two athletes;
- **Question 6** – failure to choose three **main-course** dishes;
- **Question 7** – choosing dishes that were too high in fat, sugar and starch for two elderly relatives.

Candidates should avoid repeating skills and ingredients. A number of Examiners awarded high marks for low-skilled dishes, e.g. baked fish, simple salads and pasta dishes using bought pasta and cream-based sauces. The mark scheme states that 'maximum marks must be reduced for simple dishes' yet this was not always applied correctly. Some candidates prepared drinks. Drinks should only be prepared when specifically asked for in the test.

Candidates who repeated skills, e.g. used the creaming method to make a cake and a pudding, or repeated ingredients, e.g. used pasta and cheese to make both a lasagne and macaroni cheese, should have been penalised in the 'Choice' section of the Practical Test. In the 'Choice' section, candidates should list their dishes clearly for **parts (a) and (b)** of the question or should indicate which dishes include particular ingredients or methods, as required by the question. A number of candidates listed their dishes randomly so it was very difficult to check which parts of the question were being addressed.

Meals should be well-balanced and provide a range of textures, flavours and colours. Many of the meals chosen were very bland or repetitive in terms of skills, ingredients and flavours. Some inappropriate accompaniments were chosen, e.g. lasagne served with risotto. Meals were often very heavy in carbohydrates and/or lacking in protein, vitamins and minerals.

Recipes should be written clearly alongside each named dish and should be checked carefully to ensure that all major ingredients are included and that the recipes are correct for the skills being shown, e.g. the recipe proportions are correct for pastries, creamed mixtures, sauces, etc. Many candidates omitted the main ingredients, e.g. eggs for cakes. Some candidates made far too many portions of the dishes they had chosen; this added considerably to the cost of ingredients and was also very time-consuming. Cake, biscuit and pastry mixtures should be limited to a maximum of 250g flour, sauces to approximately 250 ml of milk, etc.

Time Plans should show the sequence of work to be followed for the duration of the Practical Test. Brief methods should be included for all dishes, together with oven temperatures and cooking methods and times. Many candidates completed their Time Plans well, while others did not include enough detail. Tasks in the Time Plan should be dovetailed so that while one dish is cooking, another is being prepared. Many candidates simply stated on their Time Plans that they would make each dish sequentially, restricting the credit available to them. Time plans should include the key points for making each dish and show the 'real time' sequence of working. Time Plans should state accurate start and finish times.

Many candidates were awarded full marks for stating the correct serving sequence when, in reality, the Time Plans showed that their main courses had been ready for over an hour. Cakes and cold desserts that need decorating should be made early in the test time to allow for cooling/setting before they are decorated. A number of candidates had difficulty sequencing their work in the best way and this is an area for improvement. Candidates should be penalised for poor sequencing and for preparing dishes in the wrong order, especially where undercooked dishes would represent a health risk.

Candidates can gain credit for stating three dish-washing sessions within the test time. The final dish-washing session must be included within the test time in order to gain maximum credit in this section.

Shopping lists were generally completed well but were not always thoroughly checked by Examiners. Candidates should not mix units of measurement. Metric units are preferred.

## Comments on Specific Questions

### Question 1

This was one of the least popular questions. Some of the dishes chosen were unimaginative and low-skilled, in particular the dishes including a root vegetable.

### Question 2

Candidates did not always choose their dishes carefully enough for **part (a)** and produced meals which were high in carbohydrates and fats, and lacked colour and texture.

In **part (b)** several candidates incorrectly chose to make a sponge fruit flan, rather than the cake requested. A Swiss roll, roulade, sponge cake or gateau would have been acceptable. Some candidates mistakenly interpreted using an electric whisk as evidence of the 'whisking method' of cake preparation. Some candidates prepared more ambitious biscuits, such as ginger biscuits, to illustrate the melting method, rather than simple flapjacks.

### Question 3

Many candidates failed to answer **part (a)** successfully because a large number of candidates made dishes that **all** contained cheese. Candidates should ensure that they produce a well-balanced meal, and do not repeat ingredients unless specifically requested to do so in the test question. Some very attractive dishes were chosen for this test, including gelatine-set cheesecakes, quiches and lasagnes.

In **part (b)**, dishes using shortcrust pastry were well chosen and wide ranging; in contrast, many candidates chose to use tinned fruit for the dish including fruit meaning that the dishes produced were lower-skilled.

### Question 4

Many of the dishes chosen for this question showed an imbalance of sweet to savoury dishes. Candidates should ensure they make at least one savoury dish and at least one sweet dish. For this test, many candidates produced a range of baked goods, e.g. cakes and biscuits, which were not decorated and therefore looked brown and uninspiring on the serving tables. Decorated cakes varied widely in standard; often bare cake was still visible through the icing which detracted from the overall decoration. Some cakes were simply covered in a dark chocolate coating with no further decoration and so were not obviously birthday cakes.

### Question 5

This question was quite popular although some of the meal choices for **part (a)** were not suitable for athletes and contained far too much fat, or too little protein and carbohydrates.

**Part (b)** required a large cake to be made by the creaming method. The most popular cake chosen was a Victoria sandwich cake. Some of these were beautifully decorated by candidates. The batch of scones was generally made well by candidates.

### Question 6

This question was quite popular. For **part (a)** most candidates were able to show a range of skills in their main-course dishes using three different vegetables. Occasionally, only simple skills were demonstrated, such as in the preparation of simple savoury salads or fruit salads.

**Part (b)** was answered less well as candidates tended to repeat the skills and ingredients used in **part (a)**. A good range of biscuits was chosen to illustrate the rubbing-in method, with chocolate chip cookies the most popular.

### Question 7

The dishes chosen for **part (a)** tended to be quite unimaginative and many of them contained far too much fat, sugar and starch. Meals tended to lack colour, flavour and texture and many of the meals had no crisp or chewy textures at all.

**Part (b)** of the question was answered extremely well.

### Question 8

Most candidates answered **part (a)** of this question well with a range of suitable and skilful dishes, although in some cases the dishes chosen would be unlikely to appeal to teenage friends.

**Part (b)** was not answered particularly well because many candidates repeated ingredients or skills from **part (a)**. To show the 'steaming method' of cooking, candidates are expected to use a steamer to cook the dish, such as steamed syrup pudding, rather than simply preparing an accompaniment such as steamed vegetables.