



**General Certificate of Secondary Education
June 2012**

Home Economics: Food and Nutrition 45851

(Specification 4585)

**Unit 1: Home Economics: Food and Nutrition
(Written Paper)**

Report on the Examination

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Set and published by the Assessment and Qualifications Alliance.

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General Points

This was the second year that marking has been done online. There was still evidence that some candidates had written outside the allocated space, e.g. up the sides of the paper and in blank spaces. They should be reminded of the importance of answering within the space provided or alternatively on supplementary paper.

Question 1

1. (a) This was answered accurately by virtually all candidates..

1. (b). Although they did not use the word fortified a number of candidates were able to say that white flour had nutrients added. However, there were a large number of incorrect answers with many candidates connecting the mineral calcium with milk and then assuming white bread was made with milk.

1. (c) Only about 50% of candidates answered this correctly.

1. (d) The majority of candidates knew the correct answer was anaemia but there was evidence of a lot of inaccurate spelling of the word.

1. (e) A number of candidates were able to score at least 1 mark. The most frequent response was that vitamin C helps the absorption of iron. Tea and coffee were occasionally given as answers. A few more able candidates were able to refer to haem and non-haem iron.

1. (f) Overall most candidates were well prepared for this question with the majority gaining at least 2 marks. The most common answers referred to fibre and protein. Some answers were not specific with candidates giving a function without mentioning the appropriate nutrient. These candidates were not able to score highly. Some candidates just repeated the information from the table giving quantities of nutrients without making a reference to the value to the body.

1 (g) A few candidates scored full marks but a number failed to list foods in a form which was suitable for a packed lunch. The most frequent unacceptable answers were red meat, liver and green vegetables. Some candidates gave sources of vitamin C rather than of iron and others suggested bread despite it being in the question. Correct responses included dried fruit, cereal bars and nuts.

Question 2

2. (a) The vast majority of candidates answered this correctly.

2. (b) The majority of candidates scored 1 mark for this question and quite a few students were able to mention a roux sauce. Others mentioned all in one or blended sauces. Some candidates did not understand the question and referred to cake-making methods such as creaming and whisking whilst others talked about cooking methods, e.g. boiling and microwaving or even heat transference methods such as conduction and convection. Some candidates used supplementary paper to describe the methods in detail rather than naming the method.

2. (c) This question was answered accurately by a minority of candidates who either knew that it was the gluten in the flour or mentioned an allergy to wheat flour. A considerable number of candidates referred to the cheese or milk.

2. (d) Many candidates showed an understanding of the dietary goals and related these to the ingredients in the sauce recipe. However, many answers only mentioned ways to lower fat content such as low fat butter or margarine, semi-skimmed/skimmed milk and low fat cheese. Students would be advised to look at all the ingredients on the list and refer to more than one healthy eating guideline. There was a common misconception that replacing butter with margarine was an acceptable modification.

2. (e) Most candidates attempted this question but there was a limited knowledge of the process of gelatinisation with many finding it difficult to explain the process. A few candidates wrote about gelatin and how to use it. A number of candidates knew that gelatinisation was the effect of moist heat on starch and described starch grains swelling and bursting. More able candidates mentioned accurate temperatures and made good use of terminology.

Question 3

3. (a) Just under half the candidates named the vitamins correctly and scored 2 marks. Some candidates confused water soluble and fat soluble vitamins.

3. (b) Most candidates scored at least 1 mark for this question. However there was evidence of some guesswork with candidates giving a long list of vitamins. They need to be advised just to give the correct number of responses.

3. (c) Some candidates answered this well referring to vitamins B and C and linking them to being water soluble or heat sensitive. However, this question did not score well as many candidates did not link the method of destruction to particular vitamins. There were too many references to 'some vitamins' or 'all nutrients'.

3. (d) This question differentiated well. Whilst there was evidence of accurate knowledge with some candidates achieving full marks, other candidates clearly guessed. A small number left the question paper completely blank. Vitamin C was answered more accurately than Vitamin

B2. A lot of students knew that folic acid prevented spina bifida. Candidates lost marks in the sources section and should be advised to give specific food sources rather than just to state fruit and vegetables. Other candidates gave a very long list of sources in the hope that they would hit on a correct answer.

Question 4

4. (a) There were many clear accurate responses. It was decided to accept either 3 micro-organisms or 3 named bacteria.

4. (b) This was generally well answered; however, some candidates gave more than 3 responses. Most candidates gave food, warmth and moisture. Some said heat instead of warmth.

4. (c) A number of candidates were able to answer this accurately and scored full marks. The majority of candidates knew the temperature of boiling water and the freezer. Some thought the freezer temperature should be 0°C; others forgot to give the minus sign. There were a lot of inaccuracies with regard to the danger zone.

4. (d) This question was accessible to the great majority of candidates and differentiated well. Although there were some excellent responses the majority of candidates scored in the middle band. Preventing food poisoning during storage was answered better than when preparing food. Some candidates thought it was a chance to explain exactly where food should be stored in the refrigerator and used the whole of the allocated space to explain this. Other candidates failed to read the question carefully and included information about cooking. A lot of candidates answered this question in detail using the blank space at the bottom of the page to answer, however, they should be advised to ask for supplementary paper if they need more space.

Question 5

5. (a) Most candidates attempted this question quite well with a number scoring full marks. Many were able to name at least 3 types of additives and give a suitable function. The most popular answers were colourings, flavourings and emulsifiers. There was some confusion between emulsifiers and stabilizers. Some candidates gave a function but left the type of additive column blank and consequently scored no marks.

5. (b) This question was not answered well. A number made no attempt whilst others gave 2 answers. They should be advised not to hedge their bets in this way. There was evidence of a lot of guesswork with many responses starting with the letter 'E'. A significant number did include the word 'European' and scored 1 point.

5. (c) This question differentiated well as there was a wide range of responses with some candidates scoring full marks. Candidates recognised advantages of additives well and scored better when they explained these rather than just giving a list. There were some

vague responses such as colour, taste, texture and smell without any explanation and these did not score highly. Disadvantages were less well recognised with some just saying additives are unhealthy or bad for us. Hyperactivity and allergic reactions were the most frequent disadvantages mentioned. Some candidates wrote about the advantages and disadvantages of convenience foods rather than additives. There was some repetition of information from part (a) particularly with reference to emulsifiers and food keeping for longer. Some candidates made references to fat, salt and sugar.

Question 6

6. (a) This question was well answered by the great majority of candidates with most scoring at least 3 marks. Some candidates only gave 3 answers and should be reminded to look at mark allocation. Often noise level was omitted. Occasionally candidates gave information such as colour which was not shown on the label. A number of candidates wrote at great length and actually ran out of room.

6. (b) The most popular correct answer was fridge freezer but there was some confusion between fridges and freezers. A number of candidates made no attempt to answer this question. A few named brands rather than gave types.

6. (c) Most candidates were able to recognise modern features. The most popular answers were 'water dispenser' and 'ice maker'. However, there were a number of vague responses such as shelves and lights. A few candidates had difficulty describing a digital temperature display.

6. (d) This was quite well answered. Many candidates seem to be knowledgeable on the actual wording of the Act.

Question 7

7. (a) This question was well answered with a good understanding of farmers' markets shown. Most candidates were able to give advantages and disadvantages. A wide range of answers was given with the most popular being fresh, good quality, expensive and a limited range. Where candidates failed to score full marks it was often because they only described advantages.

7. (b) This question was accessible for the great majority of candidates with very few not making some attempt to answer it. There was a wide range of marks with some excellent answers with accurate points. Some candidates showed evidence of planning and this resulted in well-structured and reasoned discussion.

Unfortunately some candidates did not recognise the term hypermarket and confused this with local markets, warehouse clubs and specialist shops. Alternatively they just talked about supermarkets. Others thought a specialist shop was the same as a corner shop. Although the internet was answered most successfully some candidates referred to using the internet

to shop for clothes and electrical items and made vague comments about Groupon etc. A number of candidates seemed to think having to wait in for a delivery was a disadvantage and did not recognise that delivery slots are usually a 2 hour band and can be fitted into the family lifestyle as they do deliver until 11pm. There were a number references made to the van driver putting all the shopping away, some even said you could leave a key out for them. A popular word used with regard to shopping methods this year was 'sustainable', however, it was often used incorrectly.

Although the question specifically asked about shopping for a family some candidates made references to elderly people living alone.

It was disappointing that a small number of candidates did not even attempt this question.

Grade boundaries

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