Principal Examiner’s Report on the Question Paper for GCSE Food and Nutrition (45851)

General Comments

It was felt the paper this year was accessible to most candidates and the majority coped well. Most questions were attempted in full. The criteria banded questions provided good differentiation. Whilst most handwriting was better this year there were still some papers which did not scan well and were difficult to read on screen. There was still evidence of candidates writing outside the lines and they should be reminded to use supplementary sheets if they run out of space. When using supplementary sheets candidates need to make sure they clearly indicate which question they are answering.

1(a) This question was attempted by all candidates and the majority were able to score full marks. The most popular answers were cheese, yogurt, cream, butter and ice-cream. A number of candidates mistakenly thought eggs were a dairy food and chocolate was suggested by some.

1(b) This question was also attempted by all candidates and was generally well answered with many achieving two marks. Popular answers were vitamins A, B and D. However, candidates should be encouraged to read the question carefully as there were significant numbers suggesting nutrients such as protein, calcium and iron when the question specifically asked for vitamins.

1(c) Knowledge of the nutrients lacking in milk was poor and this question was not well answered. Very few candidates gained the full two marks. The most popular correct answer was iron. Although the question was attempted by virtually every candidate a number scored no marks.

1(d) This was a popular question and generally well answered. To score well candidates needed to discuss both drinks in relation to teenagers’ dietary needs. Many were able to do this and a number achieved full marks. Many candidates worked logically through the chart and were able to make good links between the nutrient, function and data. Many wrote in depth and needed to use supplementary sheets for their answer.

The nutrient most often omitted was fat, perhaps because of its negative link to healthy eating. Positive responses for fat included warmth, protection of internal organs, provision of energy and a conveyor of fat soluble vitamins.

Some candidates simply compared the figures between the drinks but failed to link the data to the dietary needs of teenagers. However, it was pleasing to see that relatively few candidates scored in the bottom criteria band.

2(a)(i) This was answered accurately by almost two-thirds of candidates. However, there was evidence of candidates changing their answer and occasionally it was difficult to ascertain which was the final response and this led to difficulties in marking.
2(a)(ii) This was also answered accurately by many candidates. However, the amount of alterations did suggest that some candidates were using guesswork.

2(b) There was some evidence of a good knowledge with 17.2% of candidates scoring full marks. Good responses referred to enzymes as catalysts and speeding up chemical reactions. The majority (65.2%) scored one mark with a simple explanation of the function of enzymes in digestion. A small number of candidates did not attempt this question.

2(c) A small number of candidates demonstrated good knowledge and scored in the top band. In the main, this question was answered poorly with many giving only a basic understanding of some of the processes of carbohydrate digestion thus scoring in the bottom criteria band. It was disappointing to note how many candidates were unable to give even a simple explanation of the digestive process.

Confusion was shown between the small and large intestine with many candidates generally referring to them as intestines. A number of candidates seemed to think food entered the intestines before the stomach. Some described digestion in general making reference to both proteins and fats. Little use of technical terminology was noted. Although only 4.8% of candidates did not attempt this question it was noted that these came in batches suggesting they were from the same centre(s).

3(a) This was generally well answered with over half of all candidates gaining the full two marks. Popular answers related to a lack of equipment, time, cost and the skill of the cook. Some candidates referred to packet mixes rather than ready-made cakes. Candidates should be advised not to give one word answers which are sometimes difficult to interpret and may not be credited. A number of candidates stated quick and easy without any further explanation.

3(b) This question was well answered with many candidates able to give good explanations for the use of food additives in cakes. The most common answers related to preservatives, colourings and flavourings. Vague responses such as ‘to look, smell and taste better’ were not awarded marks. When discussing the use of flavourings candidates mentioned enhancing, improving or adding flavour. However, when discussing colourings more vague answers were seen such as ‘to make it nicer or to look better’.

3(c) This question was well answered with over 70% of candidates able to give at least 2 good reasons for the use of cardboard and cellophane as packaging materials. To gain full marks candidates needed to refer to both types of packaging materials. A small number of candidates made general comments without referencing the material. Most popular answers were to do with preventing contamination and recycling. Some repetition of answers was noted.

3(d) A popular question which was generally well answered. Many candidates were able to give three advantages of making cakes. Popular answers were connected to cost, choosing your own ingredients or decoration and amending the recipe to make it healthier.

4(a) The majority of candidates scored well on this question and were able to make suitable suggestions to use up the leftover foods. Answers such as feeding the birds were not acceptable.
Candidates were asked to give one example for each food and should be reminded that they should only give one answer. They should also avoid repetition by giving different examples for each food. A small number of candidates suggested sandwiches for all three foods. Whilst sandwiches were accepted for chicken, candidates needed to appreciate that leftover bread and cheese may not be of the highest quality and would be better used in cooking.

4(b) Most candidates were able to make at least two good suggestions of ways to prevent waste other than using up the leftovers. Planning menus, making shopping lists and not buying/cooking more than is needed were popular responses. Lack of clarity sometimes let candidates down. A number of candidates missed the point of the question and suggested ways to use things they didn't want by feeding them to pets or giving them away to food banks, homeless people, neighbours or sending it overseas to poorer countries.

5(a) The mark scheme suggested a wide range of advantages for including potatoes in the diet and this enabled many candidates to score well on this question. Unfortunately there was evidence of vague references to unnamed vitamins and minerals which we were unable to credit.

5(b) More than half the candidates were able to give a simple description of how heat is transferred during the baking of potatoes and score at least one mark. More detailed and accurate responses gained full marks. Some candidates were able to name the heat transference method but could not give an accurate description.

5(c) The majority of candidates were able to score 3-4 marks for this question. There was some evidence of candidates repeating answers despite being advised not to do so in the stem of the question. Candidates needed to make reference to the loss or retention of water soluble vitamins rather than nutrients to be credited and should always explain what they mean when they say a cooking method is healthier.

5(d) A limited knowledge of the changes occurring when meat is stewed was shown with this question being poorly answered by many. Very few candidates made any attempt to discuss how moist heat tenderises cheaper cuts of meat and there were very few references to collagen or gelatin. Most popular answers referred to changes in colour and flavour and the killing of bacteria. However, there was some good use of appropriate terminology with a number of candidates showing a sound understanding of denaturation and coagulation. Other responses mentioned the terms without demonstrating any understanding.

6(a)(i)There were a small number of clear, succinct answers explaining the term caramelisation accurately which scored the full two marks. However, many candidates achieved only one mark. There were a number of incorrect responses often consisting of one word answers or quoting the colour caramel.

6(a)(ii) Very few candidates could explain the term dextrinisation with only a small number gaining the full two marks. A number of candidates made no attempt to answer this question. Others confused dextrinisation with denaturation of proteins.
6(a)(iii) This question differentiated well. A number of candidates were able to give a good explanation of the term gelatinisation and scored the full two marks. However, there was a lot of guesswork seen with references to setting jelly and gels.

6(b) Although there was plenty of scope for candidates to do well on this question few scored full marks. There was evidence of repetition. Some candidates were not specific about the changes they would make and just gave a one word answer such as flour, butter or sugar.

The most popular answer was changing the white flour to wholemeal to increase the fibre content. It was pleasing to see that most candidates specified wholemeal rather than just brown flour, which was not credited. Changing from white to brown sugar or using sweeteners were also not accepted. Candidates needed to specify changing butter to poly-unsaturated margarine to be awarded with a mark for lowering saturated fat content. It was not sufficient to change butter to margarine. Some candidates mistakenly thought margarine would have a lower fat content to butter. Low fat butters or spreads were also not credited as often the fat content is too low to be successful.

Some candidates were able to make valid suggestions but found justifying the changes more difficult. It was not enough to say ‘to make it healthier’. Some candidates ignored the recipe and suggested their own adaptions without using the ingredients list.

7(a) Most candidates attempted this question and many were aware of the conditions needed by micro-organisms to grow and were able to score well on this question.

7(b) Most candidates were able to correctly identify at least two foods that spoil easily. Most popular answers were milk, meat and fish. Candidates should always be advised to avoid repetition and to give a variety of answers. Three different types of meat or three different vegetables only scored one mark.

7(c) The signs of food spoilage were easily identified by many candidates with the most popular answers relating to colour, texture, smell and mould. Good answers described these changes well, linking them to a type of food. Candidates should be advised not to give one word answers which may be difficult to interpret.

7(d) Most candidates were able to identify one or two ways to store dry food to prevent spoilage. Most popular correct answers were airtight containers in a dry cupboard. Candidates should be encouraged not to give vague answers such as ‘store correctly’, ‘store at the correct temperature’ or ‘in the correct cupboard’. Some candidates specified ‘a high cupboard’. Responses such as these were not credited.

7(e) Most candidates were able to give sensible advice regarding the choice of a new chopping board. Popular answers were the choice of material and choosing colour coded boards. A small number of candidates misread the question and gave advice about using rather than buying chopping boards.
8(a) This question was a good differentiator. There were some very good responses demonstrating a sound understanding of the foods to avoid in pregnancy. A wide range of foods to avoid with good justification ensured these candidates scored in the top band. Knowledge of salmonella and listeria food poisoning was in evidence. Some candidates were able to suggest a few foods to avoid but found it more difficult to explain why they should not be eaten. Spicy foods, caffeine and alcohol were popular answers although candidates found it more difficult to explain why. A number suggested not eating liver and made good links to high levels of vitamin A. Many correctly specified retinol. Others suggested avoiding liver because of the protein and iron content. There were some vague responses to cheese, eggs and fish without any justification and these answers did not score well.

8(b) This question differentiated well. It was attempted by virtually all candidates and there were very few candidates who did not score any marks. A number of candidates planned their response before they started, resulting in logical, coherent responses. Some excellent answers were seen, demonstrating a sound nutritional knowledge of the needs of expectant mothers and full marks were awarded to these candidates. Most candidates scored in the middle band. Candidates lost marks if they failed to make links between the nutrients they mentioned and food sources.

Candidates need to be reminded to be specific when mentioning both nutrients and foods and to relate these to the needs in pregnancy. References to fruit and vegetables for vitamins and minerals needed further clarification. There was frequently good knowledge of the importance of calcium and iron but too often the mineral was linked to the wrong vitamin for effective absorption. Knowledge of the importance of folic acid, particularly when planning a pregnancy, was pleasing to see.

Some candidates lost focus and included information on which foods to avoid. This was not credited as this had been asked in 8(a). Likewise, lifestyle changes were not asked for or credited. One approach seen by some candidates was to give examples of meals and then discuss nutritional requirements from there. This was perfectly acceptable and for some candidates this gave them a framework on which to base their discussion. For others it led to a lot of repetition.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the Results Statistics page of the AQA Website.

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UMS conversion calculator