

GCE



**Chief Examiner's and
Principal Moderator's Report
Nutrition and Food
Science**

Summer Series 2018



Foreword

This booklet outlines the performance of candidates in all aspects of CCEA's General Certificate of Education (GCE) in Nutrition and Food Science for this series.

CCEA hopes that the Chief Examiner's and/or Principal Moderator's report(s) will be viewed as a helpful and constructive medium to further support teachers and the learning process.

This booklet forms part of the suite of support materials for the specification. Further materials are available from the specification's microsite on our website at www.ccea.org.uk.

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GCE NUTRITION AND FOOD SCIENCE

Chief Examiner's Report

Assessment Unit AS 1 Principles of Nutrition

Overall, the knowledge and understanding demonstrated across AS 1 and AS 2 was competent. The quality of written communication was also competent with most candidates accurately using a range of specialist vocabulary. Candidates should be advised to answer questions in Section A in the spaces provided on the question paper and not in a separate answer booklet. The space provided indicates the length of answer expected. Candidates should practise the skill of selecting information so responses are concise and focused on the question asked. This will have the added benefit of ensuring they have sufficient time to answer Section B.

Section A

- Q1**
- (a) This was generally very well answered with the majority of candidates correctly identifying three trans fatty acids. A small number of responses were vague stating ready meals and processed foods, but not identifying the specific food source. Whilst credit was awarded it is good practice to demonstrate a wider knowledge and understanding by presenting a variety of food sources.
 - (b) A significant number of candidates described the process of hydrogenation rather than the structure of trans fatty acids.
 - (c) Most candidates remained focused on the data presented in the table, which was encouraging. The majority of responses correctly considered the health implications of saturated fat in both food choices. Highly competent responses made the connection between serving size and satiety.
- Q2**
- (a) Overall, this question was poorly answered. Many candidates changed the focus of the question to describe the functions of antioxidant vitamins rather than the consequences of a low intake.
 - (b) The majority of candidates were able to demonstrate good clear knowledge of two effects of an excessive intake of vitamin A. It is important when asked for two answers that these are distinctly different to access full marks.
 - (c) This question got mixed responses. Basic responses tended to link vitamin D to strong bones and rickets only, rather than focusing on the importance of taking a supplement. Highly competent responses demonstrated the ability to apply knowledge effectively and clearly explain why a supplement may be necessary for an infant.
- Q3**
- (a) This was very poorly answered. Percentage ranges were not given credit.
 - (b) This was very well answered with many candidates clearly outlining a good range of health benefits of eating foods rich in fibre and thus accessing full marks. Some candidates could have been more succinct in their response as the command word indicated that a brief overview was all that was required.
 - (c) The majority of candidates correctly described the effect of starchy carbohydrates on blood sugar levels.
 - (d) Most candidates achieved the maximum 2 marks for this question by correctly identifying the vitamins required to release energy from carbohydrate.

- (e) Some of the more basic responses to this question did not go beyond stating that phytates interfered with the absorption of minerals. The highly competent responses were able to fully explain why this happens and how phytates bind onto the mineral in the body.
- Q4 (a)** Many candidates correctly identified that non-haem iron was present in fortified cereal and vitamin C was in orange juice. Higher level responses explained the significant role of vitamin C in converting non-haem iron to a more bioavailable form.
- (b)** This question was reasonably well answered. However, many candidates presented an extended outline of iron deficiency anaemia, rather than two distinctly different consequences of an inadequate intake of iron for school age children. Candidates should note that they need to apply their knowledge and understanding to the context of the question, in this case, school age children, to access full marks.
- Q5** A significant number of candidates discussed the importance of maintaining energy balance in general. Top band marks were awarded to those who could relate good energy balance to lactation.
- Q6** The majority of candidates achieved full marks for this question and were able to clearly differentiate between the two types of amino acids in the body.
- Q7** This was generally well answered. Higher level responses clearly summarised two different functions of water in the diet. It should be noted that 'preventing dehydration' is not a function of water.

Section B

- Q8** This was a fairly popular choice of question but very poorly completed by the majority of candidates. Most responses explained general benefits of fruit and vegetables in the diet, but made little or no specific reference to adult men.
- Q9** The standard of responses was generally good for this question and many candidates demonstrated good perceptive knowledge and understanding of reasons for poor hydration in older adults and the frail elderly. Highly competent responses showed clear understanding by providing a good detailed explanation for each reason. Some responses included reasons such as climate, physical activity and high altitude which were not accepted as specific to this age group.
- Q10** This was the most popular question in this section. The quality of written responses was generally very good and in some cases, exceptional. However, candidates still need to carefully take into account the life stage given in the question and include only relevant knowledge and understanding in their response. No credit was awarded when nutrients which were not specific to pregnancy were discussed.

Assessment Unit AS 2 Diet, Lifestyle and Health

- Q1 (a)** The majority of candidates stated the physical activity guidelines for children and young people correctly.
- (b)** A number of candidates misread the question, suggesting reasons why eating patterns or food choice in children may increase their risk of obesity rather than focusing on leisure patterns. This question also emphasised the need for candidates to read the command word and observe the number of marks awarded to avoid unnecessarily lengthy responses.

- (c) The majority of candidates clearly identified two health problems that occur in overweight children although some candidates focused on adults.
- Q2** (a) Overall this question was well answered. Some candidates described the role of cholesterol rather than providing a definition. Candidates should take the time to read the question and note the command word before starting to write an answer.
- (b) Almost all candidates accurately named three non-modifiable risk factors for cardiovascular disease.
- (c) The majority of candidates were able to clearly explain the relationship between smoking and cardiovascular disease. Knowledge and understanding of high sodium intake and cardiovascular disease was more limited.
- Q3** In this question, many candidates did not describe the impact of shift work on eating patterns focusing instead on the impact of food choice on health which cost them valuable marks.
- Q4** Responses to this question were very encouraging with the majority of candidates achieving top band marks.
- Q5** It was encouraging to see that some candidates had practised and perfected the challenging skill of reading and using data. However, too many continue to describe the data rather than use it to support their explanations.

Section B

- Q6** This was the most popular choice of question in Section B. Overall, the quality of written responses was very good with the majority of candidates demonstrating an ability to discuss valid reasons for not drinking alcohol if pregnant or planning to become pregnant. Lower band answers tended to focus almost exclusively on the prevention of Foetal Alcohol Syndrome.
- Q7** Candidates who answered this question did so very well, demonstrating a competent understanding of diet and cancer. Some points to note for this style of question:
- Answer the question asked which was recommendations to reduce the risk of cancer, some candidates read this as causes of cancer.
 - Use key UK sites for sources of information.
 - When asked for a specific number of points in a question, make sure to provide this number and clearly identify them in the response i.e ‘the first dietary recommendation to reduce the risk of cancer is.....’
- Q8** This question was popular and overall, well answered with the majority of candidates correctly explaining the reasons why energy varies from person to person.
- Q9** This was the least popular choice of question and there were only a very small number of top band responses. In general, candidates were unable to explain how advertisements may prevent consumers from making healthy food choices. Lower mark bands were awarded to responses that deviated from advertisements and instead focused on marketing or selling techniques.

Good practice for AS1 and 2

- Read the question and follow the command word (definitions of the command words used in AS Nutrition and Food Science can be found in the CCEA Factfile entitled Understanding Examination Questions available on the subject microsite).

- Aim to provide a succinct answer using the space provided as a guide to the length of answer expected.
- Write your answers to Section A in the Question Paper.
- When answering data response questions, select appropriate data from the table to support your response.
- Become familiar with the standard expected by reading the Grade Descriptions on pages 23 and 24 of the specification and Exemplification of Examination Performance (EEP) resources available on the subject microsite.

Practices to be avoided:

- Do not ignore the command word.
- Avoid lengthy responses for Section A.
- Do not answer using bullet points.
- Avoid lengthy introductions and conclusions.
- Avoid giving background information to the topic, just answer the question asked.
- Avoid describing data.

Assessment Unit A2 1 Food Security and Sustainability (Option A)

Overall, candidates demonstrated all three assessment objectives competently in both options of this new specification. Candidates were clearly well prepared for the examination and teachers are to be commended. There was some excellent knowledge and understanding in evidence and some highly competent communication skills used to provide mature, well-focused responses.

The level of knowledge demonstrated by many candidates in this option was detailed, current and fully focused on the specification requirements. These candidates were also skilled at applying their knowledge and understanding to the question asked. There were many examples of highly competent student engagement with the topic and the question along with extensive use of specialist vocabulary.

Section A

- Q1 (a)** Most responses were adequate or above for this question. Candidates clearly knew the campaign. However, a significant number focused solely on practical advice provided for consumers. For a top band answer, examiners were expecting a broader understanding of the campaign.
- (b)** This question was well answered with the majority of candidates identifying a wide range of possible reasons for the problem of food waste. Top band answers demonstrated highly competent written communication.

Section B

- Q2** This was a very popular question and overall was well answered. Relevant material was organised with a good level of clarity and coherence. Examiners also noted that some of the candidates were able to select relevant information from a number of areas of the specification when discussing disadvantages of large supermarkets which enhanced their response.
- Q3** This question was answered to a competent level by the majority of candidates who chose it. A sound knowledge of the benefits of Fairtrade was evident. However, a significant number did not have the skill required to examine these benefits in sufficient detail. This prevented them from demonstrating the level of understanding required to access the top band marks.
- Q4** This was the least popular question in Section B and overall it was not well answered. Most candidates struggled to stay focused on the question wandering into the benefits of shopping sustainably rather than evaluating environmental or green claims. Other responses gave lots of advice for consumers on making sustainable choices.
- Q5** Candidates were well versed in a wide range of possible reasons for food poverty, with many accessing the middle mark bands. Top band marks were awarded for those candidates who were able to discuss these reasons from all angles, demonstrating understanding and engagement.

Assessment Unit A2 1 Food Safety and Quality (Option B)

There were some highly competent responses to the questions in this option. These candidates were able to access the top band marks because they demonstrated an in-depth knowledge of the specification. They clearly understood and engaged with the topics which allowed them to apply their knowledge and understanding accurately to the question. Candidates achieving marks in the lower mark bands tended to write everything they knew about the topic rather than answer the question. An ability to read the question and a good understanding of the command words is of critical importance to achieve maximum marks.

- Q1 (a)** The best responses to this question showed an awareness of the European Food Safety Authority (EFSA) and its role in assessing and advising policy makers. This knowledge was competently described using well selected examples. However, many candidates presented a general, repetitive response. Some misread the question and described the work of the Food Standards Agency (FSA).
- (b)** Candidates demonstrated a very good level of knowledge and understanding in this question. Many were able to explain a range of reasons using subject specific terminology and an appropriate level of written communication. Lower band marks were awarded when answers were too descriptive or included irrelevant information such as the work of the World Health Organisation.
- Q2** This was not a popular choice of question but those who selected it were mostly able to describe more than one quality assurance system in a competent manner. Good Manufacturing Practice (GMP) was described in the best detail. Quality Assurance Standards were described in more general terms and, if described at all, knowledge and understanding of food traceability was disappointing.
- Q3** This was a popular question and those who were focused achieved top band marks. However, a significant number of responses provided pages of irrelevant information

on sources and health effects of the contaminants before finely briefly addressing the crux of the question.

- Q4** This was also a popular question with many candidates displaying a good level of knowledge and understanding. To access the top band marks, candidates had to stay focused on establishments that serve food and not simply provide a long list of basic hygiene rules with little or no explanation. HACCP was a critical part of the answer but was often overlooked by candidates. The command word for the food law inspection part of the question was 'outline' which indicates that a brief overview was all that was required. Many answers provided an extensive discussion instead. Time could have been more productively used elsewhere.
- Q5** This question was another popular choice for candidates many of whom were able to provide a detailed account of the work of the FSA in relation to allergies and intolerance. A good range of examples of their work were examined in the better responses. Explanations of why allergies and intolerances are on the increase did not warrant any marks.

General advice for candidates

- Prepare to demonstrate all three assessment objectives. See page 23 of the specification for further details.
- Make sure you understand the expected quality of written communication. See page 23 of the specification for further details.
- Make sure you are familiar with the demands of the command words. See the Factfile Understanding Examination Questions for definitions.
- Practise the skill of reading the question and selecting relevant information to include in your answer.
- Make sure you understand the topics as well as knowing the facts as this will help you discuss and extend your answers.
- Improve your quality of written communication by using specialist vocabulary.
- Avoid lengthy, general introductions and conclusions.
- Make sure your writing is legible and your response is well-organised, clear and coherent.
- Attach additional sheets securely to the answer booklet with a treasury tag.

Principal Moderator's Report

Assessment Unit A2 2 Research Project

The moderation team is pleased to report that the standard of marking and application of assessment criteria was in line with the standards set at Agreement trials. Top Band candidates produced beneficial studies which demonstrated clear understanding of the process.

With the introduction of the new specification 'GCE Nutrition and Food Science', there was the opportunity for students to explore a range of interesting topics. Many titles have now become predictable by specific centres with a lack of innovation. Some centres challenge themselves and their students with some innovative areas of study: protein supplements, energy drinks, vitamin D, food waste and food sustainability. Titles should reflect the content of the report and the aim. Some suggested knowledge testing or secondary research; this hampered the students' ability to explore the issues fully.

Abstracts were assessed fairly but some references are being made to secondary information and findings should be checked against the conclusions for accuracy.

The introduction is still a challenge for many students. Whilst the rationale was well documented and relevant statistics given, many students failed to discuss the research problem. In some instances, this was due to inability to refine their thinking within the topic. Hence the study lacked direction. This was an area that was frequently over marked especially when there were omissions e.g. no aim or ethics. This lack of direction led to generic limitations and non-specific ethical considerations.

The Literature review continued to be the strongest area with top candidates producing a critical review of current research. However, students still need to be encouraged to challenge what they uncover and how it may relate to their study.

The Methodology section for many centres was generally well documented but, for some, the justification of the research tool and comparison to another tool was generic. This is a section where over marking can easily occur. Evidence of sound planning, applied thinking, thorough documentation of procedures and evaluation are essential to warrant Mark Band 4 marks.

Top candidates produced some very focused and well-structured questionnaires. The tool should be a culmination and application of evidence gathered from literature review and methodology as well as ethical consideration. Many teachers recognised the strengths and weaknesses of the tool but, for others, knowledge testing and leading questions were the main stumbling blocks. This was an area that was leniently assessed.

The Results section of the report was assessed appropriately and required two different charts/tables. The aim should be to present more complex data in an easily understood format which should be referred to as Fig 1 etc. within the related text. There is no benefit in incorporating more as this encourages students to convert simplistic data into visual expression.

Top candidates displayed higher level skills of analysis, interpreted results accurately and integrated findings within their discussion, correlated with appropriate secondary source material. Students with reduced ability to analyse and interpret their own findings relied heavily on secondary material. This does not warrant higher band marking.

Conclusions are now addressed as a separate section which has encouraged the student to think carefully about their main findings. The weaker, lower band candidate simply repeated statistics rather than a drawing of findings of the full report. Assessment was slightly lenient and the teacher inclined to award Mark Band 4 marks when work was clearly Mark Band 3.

Assessment was similar for the Recommendations section of the report whereby the evaluation of the investigation was ignored and future recommendations appeared contrived and unrealistic. The higher band candidates showed themselves capable of reflection, identifying the shortcomings of their study. They were able to project the study forward and some valid ideas were expressed. Teachers whilst wishing to acknowledge the efforts and attainments of all students need to show clear differentiation between top and lower band candidates.

Many students have been well guided through the process and top candidates have produced scripts of a very high standard. Centres have applied standards fairly and consistently. Teachers' annotation in some centres was scant but in the majority it was extensive, insightful and supportive of the mark awarded. It was pleasing to see many teachers, recognising strengths/weaknesses of scripts or where support/guidance was given.

Centres can avail of additional support through CCEA in the form of Portfolio Clinics, agreement trials, exemplar materials, online support and school visits to assist and reassure them in the delivery of the process.

Contact details

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