

Home Economics (Food, Nutrition and Health)

Advanced GCE A2 H511

Advanced Subsidiary GCE AS H111

OCR Report to Centres

June 2013

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This report on the examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

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Overview

In all units candidates are generally performing well, demonstrating understanding of the assessment objectives and question demands. The specification has been assessed a number of times now and it is clear that centres are becoming very familiar with the structure and assessment requirements of each unit. On the examined units, the vast majority of candidates answered all the questions, or all question parts and the impression was that candidates were prepared for the specific requirements of the examinations.

On the whole there continues to be a wide variation in the performance of candidates; those who achieved high marks were able to demonstrate that they could apply in-depth knowledge and understanding of the concepts, principles, theories and issues relevant to people. They used appropriate subject specific terminology, confidently and accurately. However, low achieving candidates had a very basic understanding of the concepts, principles, theories and issues relevant to people presented in the specification content. They show some use of subject-specific terminology.

The Principal Examiners' reports have a number of common features in the scripts they have assessed. These include:

- **Planning the response.**
The preparation of candidates for the written examinations is important, particularly at A2. Good responses in Section B were usually accompanied by concise plans. Centres are encouraged to give candidates guidelines on the different ways in which an answer can be planned and developed concisely.
- **Focus on the questions set.**
A significant number of candidates seem to struggle with the skill of interpreting the context and applying their knowledge to the particular question set. Centres should allocate time to the analysis of exam questions so that candidates develop a greater understanding of the command words and are able to identify the key words and context in a question.
- **The skilful management of time.**
High level marks can be awarded in section A for short, concise responses. It is important that candidates reserve time for the Section B questions later in the paper.

The Principal Moderator's report highlights that to achieve high band marks a variety of primary and secondary investigative methods should be used in order to fulfil Assessment Criterion 3. More attention should be focused on ensuring there is depth and precision in the execution of research methodologies. A critical evaluation is required giving full consideration to the aims, prediction, methods and research question for the high band marks.

Finally, the imbalance in performance between the units suggests that candidates are spending a disproportionate amount of time on the investigative study and as a consequence this is contributing to a lack of time for developing an in-depth knowledge and understanding of the concepts, principles, theories and issues outlined in the specification.

Centres and candidates are encouraged to refer to the OCR website and the resources available for each unit.

G001 Society and Health

General Comments

Section A was answered well by the majority of candidates. All candidates followed the rubric for Section B and only selected two questions to answer. The paper was completed by candidates with a wide range of abilities and marks were awarded across the whole range of the mark scheme.

The second part of each Section B question is worth 15 marks; therefore more time should be spent on answering this part of the question. The majority of candidates appeared to have left sufficient time to complete the paper as they had completed their answers to Section B questions.

Many candidates produced short plans for Section B questions which is good practice and should be encouraged. Some candidates then used the plans to decide which questions to answer. Spelling, punctuation and grammar were generally at an acceptable level although the writing on a small number of scripts was difficult to read.

Comments on Individual Questions

Section A

The vast majority of candidates were able to attempt all questions with very few who were unable to respond.

Question 1

(a)(i) The data was extracted correctly by all candidates.

(a)(ii) The data was extracted correctly by all candidates.

(a)(iii) This question was answered well by the majority of candidates. However, some candidates misinterpreted this question and wrote generally about unemployment rather than youth unemployment. It is important that candidates read the question thoroughly and check the context.

(b)(i) Many candidates answered this question very well with a clear definition of the term 'family' given.

(b)(ii) There were some excellent answers to the question with many candidates defining correctly a household. There were some misconceptions that a household was a house that people lived in.

(c) The identification and description of three types of family structure was answered well by the majority of candidates with most common answers including clear descriptions of nuclear, extended and reconstituted families.

(d) This question was quite well answered although there were some responses which lacked an explanation and therefore failed to gain marks. Common answers included an increase in divorce as a reason for the increase in lone parent families, choosing to have a family later due to careers for the increase in the older mothers and the sharing of tasks for changing family roles.

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- (e) This question gained mixed responses with candidates often failing to describe fully two health risks associated with smoking. The most common health risks included an increase in heart disease, cancer and high blood pressure.

Section B**Question 2**

- (a) Many candidates answered this very well with full descriptions of the causes of coronary heart disease. Common answers included those that described high blood pressure, obesity, smoking, a low intake of fruit and vegetables, age, gender and family history. Where this was answered less well candidates listed the causes of coronary heart disease with very little description.
- (b) The context of the question related to the role of diet in the prevention of coronary heart disease and was often missed. It is important that candidates read the whole question and note the context in which it is written. Candidates were often able to explain factors such as the reduction of saturated fats, eating fruit and vegetables, reducing salt and following healthy eating guidelines. Where this was answered less well, candidates repeated the Eatwell plate and eight healthy eating guidelines. Some explained the need to give up smoking and alcohol and taking more exercise which do not relate to the role of diet in the prevention of coronary heart disease.

Question 3

- (a) This question was not well answered. Candidates often described the role of William Beveridge in the reforming of the welfare state and then described the five evil giants. Very few candidates were able to describe a wide range of issues facing the provision of the welfare state. The most common answers referred to the cost of the National Health Service and an aging population.
- (b) Many candidates answered this question well with full explanations of the effects of homelessness on a young adult. Common answers included low self-esteem, boredom and difficulty in obtaining mainstream services, social exclusion and increased dangers. Weaker candidates did not relate their answer to young adults.

Question 4

- (a) This question was answered quite well by those who attempted it. Some candidates demonstrated a good knowledge of how recycling in the home is important in sustaining the environment. The most common links referred to the use of landfill sites and saving resources. However, there were many weaker responses where there was no link between recycling practices and the importance of sustaining the environment.
- (b) This question was answered quite well as candidates were able to explain how reduce, re-use and recycle can be done effectively. Common answers for reduce were, only buy what you need and choose goods with less packaging, for re-use answers were water bottles and buying refill packs and for recycle, kerbside collections, charity shops and recycling banks. Some candidates limited their answers by making reference to energy saving in the home and not how a household may reduce, re-use and recycle.

G002 Resource Management

General comments

The paper was accessible and provided the appropriate level of difficulty, giving candidates the opportunity to achieve high marks. It was completed by candidates with a wide range of abilities and marks were awarded across the range.

There were few misinterpretations of the questions and few misinterpretations of the rubric, where candidates only answered one question from Section B. Most candidates seemed to have time to complete the paper although a few did not fully answer some questions.

Where plans were evident, they were usually concise and appeared to be of benefit to the candidate. This is good practice and should be encouraged. A few were very detailed leaving candidates less time to write answers to the question.

A few candidates completed their responses in Section B as one long paragraph, with very little punctuation. For candidates to achieve higher marks for their level of response, care needs to be taken with spelling, punctuation and grammar. The writing on a small number of scripts was difficult to read. Where low marks were achieved this was as a result of a lack of specific knowledge, not accurately reading the question stem, lack of technical terms or poor examination technique.

There were also some excellent, detailed responses in Section B and it was clear that candidates had taken time to read and understand the questions before formulating their answers. Some excellent use of subject specific terminology was encouraging when this was also used appropriately. Spelling, punctuation and grammar were at an acceptable level.

Section A

None of the candidates achieved full marks for this section. Most were able to attempt all of the questions.

Question 1

- (a)(i) Most responses were correct. A few candidates did not gain credit because they stated expenditure as £71.
- (a)(ii) Again, most responses were correct. A few candidates did not gain credit because they stated expenditure as £73.
- (a)(iii) Most candidates stated the correct year.
- (b) Most candidates were able to state two reasons why the trend in eating out has increased and thus achieved full marks. The most popular responses were 'more disposable income', 'wider variety/choice' and 'lack of time/busy lifestyle'.
- (c) There were some very good responses which gained full marks in this question. A common error was that local markets were farmers' markets, thus referring to the benefits of organic produce. Some candidates assumed that the quality of produce would be better because it had been grown locally. A few candidates confused the correct answer 'food miles' with an incorrect answer of 'air miles'.
- (d) Most candidates were able to describe, but not always fully, at least one advantage of using a credit card as a method of payment. The best answers referred to the advantage of being able to use credit cards to buy expensive items, then either pay in full at the end

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of the month or spread the payments. Protection from fraud was also a popular answer i.e. 'chip and pin'. Only a few candidates mentioned the extra protection afforded by using credit cards as a method of payment if something goes wrong with the purchase. There also seems to be a misconception that credit cards have no limit.

- (e) There was a range of responses but few candidates were able to describe three reasons for the increasing popularity of slow cookers. Most correct responses described their suitability for leaving a meal to cook whilst at work or doing other things. Some candidates did not seem familiar with slow cookers and gave generic reasons for the increasing popularity of slow cookers e.g. 'easy to store', 'cheap to buy'.
- (f) There were some excellent responses to this question. Candidates explained three factors that single elderly people might consider when purchasing a microwave oven by referring to their possible circumstances e.g. small kitchen in a retirement flat, problems with arthritis or sight difficulties. Some candidates made no reference to the context of the question, which led to low or no marks. Irrelevant factors such as energy efficiency and the weight of the microwave were frequently mentioned by candidates.

Section B**Question 2**

- (a) There were few very good responses to this question because candidates described how technology could be used to save rather than to help manage time in the home. Descriptions were usually confined to the use of the internet for banking, shopping or emails and labour saving equipment. Some reference was made to the use of freezers to reduce the need for frequent shopping and advances in cleaning e.g. nonstick coatings. Only a minority of candidates mentioned technological developments in the food industry such as cook-chill meals.
- (b) There was a range of responses to this question. Good answers were characterised by the ability to demonstrate knowledge and understanding of both the purchase and preparation of healthy meals on a low income. Explanations included appropriate examples to support the response. Growing your own fruit and vegetables was referred to by a number of candidates but few mentioned ensuring that relevant benefits were claimed e.g. healthy start vouchers or free school meals. Candidates, who confined their responses to ways of saving money when shopping for food, did not gain top marks.

Question 3

- (a) To gain high marks for this question, candidates needed to refer to storing food in ambient conditions as well as the fridge and freezer when explaining techniques that could be used for the safe storage of food. Most candidates seemed to be aware of the danger of cross contamination. There was some confusion with regard to temperatures; some candidates referring to 0° to -18°C as the temperature of the freezer.
- (b) There were some excellent responses to this question, enabling the candidates to demonstrate their knowledge and understanding of the bacteria responsible for food poisoning. Descriptions included source, symptoms and onset times for a number of named food poisoning bacteria. Some candidates confined their responses to naming only a few pathogenic bacteria, sources and symptoms were inaccurate and onset times omitted. A few candidates described the conditions necessary for the growth of micro-organisms without reference to specific bacteria.

Question 4

- (a)** Most candidates were able to describe some of the current dietary guidelines to maintain good health. Good answers referred to both the Eatwell plate and the 'Eight tips for healthy eating,' describing each guideline in detail. Most of the guidelines were described correctly but some candidates seemed confused about the amount of oily fish recommended. Also, a few candidates assumed a link between salt intake and a high cholesterol level. Alcohol consumption was mentioned by only a minority of candidates. Some candidates included ways of implementing the guidelines in 4(a) and then either repeated the information in 4(b) or ran out of time when completing the second part of the question.
- (b)** There were some very good responses to this question. Candidates who had performed well on 4(a) were then able to explain how the dietary guidelines could be applied when purchasing and preparing food. Relevant examples were used to support their explanations. Many candidates referred to the importance of reading labels, particularly with reference to 'hidden sugar'. Instead of explaining ways of incorporating more fruit and vegetables when preparing meals, many candidates explained the best ways to cook vegetables to preserve nutrients and this did not gain marks.

G003 Investigative Study

General Comments

There has been a wide variety of work submitted this year on many interesting topics. The candidates' work has been marked more realistically and marks have been more accurate again this year.

Administration

There have been very few clerical errors this year. Although some centres failed to submit a Centre Authentication Form.

Criteria 1 Analysis: Aims, initial research

- (a) Generally good, most candidates managed to produce at least 3 mind maps (some very detailed) and looked at the specification closely to identify relevant topics and discussed issues raised.
- (b) Most candidates selected an appropriate context and title and gave reasons why. Initial research was variable and sometimes missing. Many candidates effectively used the internet i.e. reliable websites and presented their findings and summarised key points.
- (c) Most candidates produced a table showing the scope of opportunities with a range of different practical and investigative methods. Even the weaker candidates managed to produce a good table.
- (d) Most completed this to a good standard with achievable aims and objectives.

Criteria 2 Planning and Development

- (a) Some candidates gave more than one prediction and other candidates produced very detailed and lengthy ones.
- (b) Most candidates included specifications but they were not always related to their practical work and not always detailed enough. Candidates still aren't putting details of quantities of nutrients but being given high marks despite this.
- (c) Generally candidates justified decisions made. Many candidates included reasons for choice of practical work. Some candidates' decision-making was evident in the report. The decision making made by the candidate should have evolved from the initial research and knowledge acquired.
- (d) Most candidates had a plan of action of varying degrees of complexity. Some candidates' plans contained realistic timescales, however, some candidates gave only a cursory statement of 'completed' next to each activity.

Criteria 3 Process

- (a) Background information was variable and some candidates were still downloading reams of information and failing to acknowledge this or analyse it. Some candidates used the internet as their only source.
- (b) Photographic evidence in this area identified the food activities that had taken place.
- (c) Most candidates were able to complete the relevant time plans and generally with accurate timings, some more detailed than others with good evidence of hazards.

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- (d) Candidates generally covered a good range of investigative methods. The most common were questionnaires, surveys and interviews. Many candidates did cost comparisons, nutritional analysis, sensory testing and disassembly.
- (e) The standard of psychomotor skills demonstrated by candidates in the execution of food practical work was generally very good. There were some very challenging food products made.
- (f) Most candidates had a clear understanding of what they had to do and how to go about it.

Criteria 3 – Realisation

- (a) The majority of candidates met most of their aims.
- (b) Candidates produced some original and creative work.
- (c) Many candidates produced leaflets and recipe books which had been printed very professionally.

Criteria 4 – Evaluation

- (a) Most candidates evaluated their practical work and related what they had done in their investigative tasks.
- (b) Candidates generally recognised how their aims had been met.
- (c) Analysing their strengths and weaknesses was evident in most candidates' work.
- (d) Most candidates produced a general evaluation and this year more candidates managed to critically evaluate. The standard of evaluations was better this year than it has been in the past.

G004 Nutrition and food production

General Comments

The session saw a wide range of candidate performance and differentiated successfully. The paper provided the opportunity for all the candidates to respond to the questions appropriately and demonstrate positive achievement. It is significant that as centres become increasingly familiar with the structure of this examination paper, candidates are more aware of the assessment requirements of each section and are managing their time accordingly. All candidates attempted section A and two questions from Section B which indicates that the questions were clear and accessible to all. The majority of candidates allocated their time appropriately and recognised that two thirds of the time allocated for the exam should be spent on Section B.

Generally, there was a clear difference between the high and low achieving candidates. At the top end, there was the precise application of knowledge and understanding of a range of appropriate social, design, scientific and technological facts, concepts and principles in answer to the questions. The lower achieving candidates were often unable to provide accurate knowledge and understanding and their answers were generalised and not applied concisely to the specified question.

In terms of assessment objectives, Knowledge and Understanding (AO1) remains the strongest area; more able candidates were able to recall with accuracy detailed factual information and concepts. AO2 (Apply knowledge and understanding and analyse problems) seemed to be the most difficult skill area for candidates; whilst many have been trained to recall factual information, they are less successful at interpreting knowledge and applying it to the specific question or context.

Overall, candidates fulfilled the requirements in terms of quality of written communication, producing work written in continuous prose and with clarity of expression.

Section A

Question 1

- (a)(i)** Good responses gave specific food sources. 'Dairy produce', 'cereals' and 'green vegetables' did not gain credit.
- (a)(ii)** The question differentiated well. The majority of candidates were awarded at least one mark for the contribution of calcium to the structure of bones and teeth. Good responses included additional references to muscle contraction, blood clotting and nerve impulse transmission. Rickets was occasionally associated with calcium deficiency.
- (b)(i)** Most candidates identified 'meat'. A common error was 'green leafy vegetables'.
- (b)(ii)** Good responses specified vegans. 'Vegetarians' did not gain credit.
- (b)(iii)** The question differentiated well. The majority of candidates were able to get at least one mark for tiredness or fatigue. Good responses indicated and spelt accurately 'pernicious anaemia'.
- (c)(i)** Generally, candidates knew what emulsifiers were but their expression was not clear, there were numerous references to 'emulsifiers emulsify liquids' or similar. Mayonnaise was usually given as an appropriate example.
- (c)(ii)** Several candidates used the term fortification accurately but were unable to link the nutrients used for fortification to the correct food products.

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- (c)(iii) The purpose of antioxidants was not widely understood. Many candidates inaccurately referred to antioxidants as being added to food products to remove free radicals from the body and to prevent cancer. Those who knew about oxidation/rancidity/increased shelf life generally expressed themselves well.
- (d) It was encouraging to note the number of candidates who correctly referred to the scientific principles of *dextrinization* and *Maillard reaction*. Most candidates gained one mark for correctly identifying one physical change in the cake baking process but some focussed on the process of making the cake.
- (e) Most candidates seem to understand what is required by the instruction 'explain', though many good responses did not develop their answers sufficiently to achieve level 3, the 'very good' mark band. Some candidates correctly identified two points and could have developed these further using examples of the 'positive and negative energy balances' correctly.

Section B**Question 2**

All candidates were able to demonstrate at least a superficial knowledge of the nutritional value, choice and use of fruit and vegetables in food preparation and cooking. Occasionally, the term 'fruit and vegetables' was used as a generic group rather than specifying the very different qualities of individual fruits and vegetables. Candidates were, however, able to give clear accounts of issues relating to the preparation and cooking of vegetables. There were some excellent explanations of how to prepare vegetables to minimise loss of vitamin C.

Some candidates placed too much emphasis on just one part of the question e.g. the uses, with the other two areas only addressed briefly. In this type of question, to achieve the higher mark band, a balance needs to be achieved between the different parts of the question and a plan would be helpful.

Question 3

Generally, most candidates had some knowledge of the benefits and limitations of different packaging materials for the manufacturer, retailer and consumer. The majority of candidates confined their response to glass, paper and board, plastics and metals with only a few mentioning biodegradable and compostable packaging materials. The best responses went logically through all the different packaging materials giving the advantages and disadvantages of each material with clear references to the manufacturer, retailer or consumer. There was quite a bit of confusion relating to cost of materials and some candidates contradicted themselves when referring to the recycling of plastics. Knowledge of the different types of plastic used for different packaging purposes was not secure.

Question 4

Most candidates who chose this question demonstrated satisfactory knowledge of how to meet the dietary and nutritional needs of adolescents and adults. Candidates with good nutritional knowledge were again able to score well on this question. To be awarded high level marks candidates needed to make a clear distinction between the needs of adolescents and those of adults. There were some excellent responses where detailed knowledge and understanding was shown of the needs of both groups. High achieving candidates referred to the *Eatwell Plate*, demonstrated sound understanding of the broad nutritional needs and some gave accurate *Reference Nutrient Intakes* for adolescent boys and girls. Candidates need to explain the function and sources of nutrients and make a direct link to the specific needs of either adolescents or adults. Some candidates did not distinguish between the two different stages of adolescence or between males and females and this limited their achievement.

OCR (Oxford Cambridge and RSA Examinations)
1 Hills Road
Cambridge
CB1 2EU

OCR Customer Contact Centre

Education and Learning

Telephone: 01223 553998

Facsimile: 01223 552627

Email: general.qualifications@ocr.org.uk

www.ocr.org.uk

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OCR (Oxford Cambridge and RSA Examinations)
Head office
Telephone: 01223 552552
Facsimile: 01223 552553

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