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Examiners' Report
June 2010



GCE Food Technology 5FT02

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Introduction

This paper was generally well received and answered, with very few candidates failing to attempt the questions. The 'ramped' nature of the exam paper and variety of questions styles and command words promoted accessibility to students of all ability levels. Progression and application of knowledge and understanding within the subject area was evident, promoting stretch and challenge opportunities for higher ability candidates.

5FT02 paper requires candidates to answer 14 questions in 90 minutes. The multiple choice questions and short answer questions were well received. Short, concise answers tended to fair better than lengthy responses that were too wordy or in deed went beyond the space for answers. Many candidates managed to write at considerable length in this time for the extended writing tasks. However, some of the answers were not focussed on the question. Relevance rather than length is the key to high marks. Additional pieces of paper are unhelpful to the marking process, and centres should note that the amount of space provided in the booklet for answers, is more than we would expect any answer to take, and not a recommendation of the amount candidates should write. More centres should make use of scribes or readers as there were many papers that were illegible. Handwriting was very variable and many candidates lost marks through carelessness or lack of thought and effort.

Question 11(a)(i)

Piping bag: used for piping potato, icing, meringue, choux pastry, decorating cakes These were all acceptable answers.

Question 11(a)(ii)

Wooden spoon: mixing, creaming, beating, stirring ingredients.

Question 11(a)(iii)

Microwave oven: only acceptable answer.

Question 11(a)(iv)

Microwave oven: only acceptable answer.

Question 11(b)(ii)

This question was well answered by the majority of candidates. Most candidates were able to correctly give the functional use of carbohydrate in the diet.

Question 11(b)(iii)

The use of a sauce in a food product produced a good range of accurate responses including sensory, physical, functional and nutritional properties.

Question 11(c)

Answers to this question were generally disappointing, with many candidates offering statements with no linked explanation or relevance to the question about batch production for pre-prepared lasagne meals. Answers needed to focus on the principle that batch production is for a fixed number of identical items. Therefore a variety of styles/shapes/sizes/ flavours can be produced for different batches of lasagne meals. Some candidates offered suggestions for these ideas linked to consumer demand or seasonal variations of ingredients. Consistent quality, shelf life, recipe development, speed of production and bulk buying were all relevant acceptable answers, but were generally limited to the A/B candidates.

Question 11(d)

Candidates are familiar with the use and choice of standard components with a good range of responses linked to time, consistency, reducing waste and cost effectiveness. It is possible to differentiate answers based on the quality of the linked explanation.

Question 11(e)

Many very good answers worthy of the full marks were given for this question focussing on the use of additives in commercial sauce mixes. However, where candidates either repeated the stem of the question or wrote one word for the answer, invariably it was not possible to access the higher marks.

Question 11(f)

This question required candidates to describe two modifications to the lasagne meal that would make it suitable for a consumer following a CHD diet, using candidate's product analysis and evaluation skills. Many candidates offered sound modifications to the food product, focussing on the type of fat, meat, dairy products or need to reduce the salt and saturated fat content, or improve the fibre content, but struggled to describe how these modifications were making it suitable for the special dietary need. Vague statements about changing butter to margarine were not worthy of any marks. This question offered stretch and challenge opportunities, and in the main this was a successful outcome to those students.

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Question 12

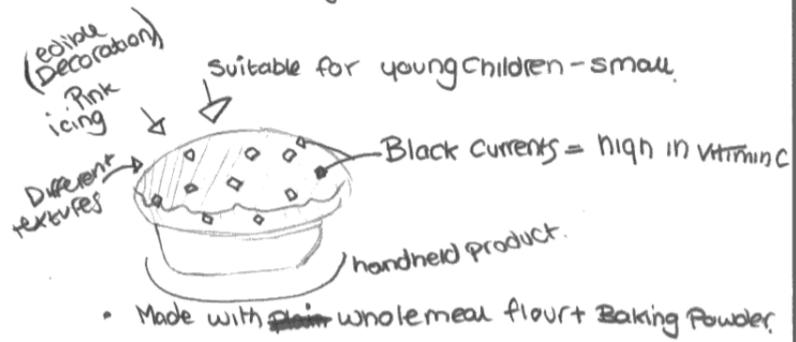
The new format to the design question produced some very good responses this year, with a wide range of suitable cake products. Most candidates managed to illustrate and label two different ideas. The quality of the annotation and labelling varied enormously across the ability range. Where candidates had read the question carefully and planned their answer methodically; and sketches and annotation succeeded in showing how the design had met the specification points, they were rewarded with some high marks. It is not acceptable to just label the specification points; they must be annotated indicating how the design has met each point. The point that caused greatest difficulty was the cake making technique. Responses needed to focus on the different cake making methods that are taught in centres. Candidates must plan their ideas carefully, using the specification as a checklist, to ensure they cover all the points.

A cross section for two different cake product offers labelling and annotation to aid communication of each design idea.

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Examiner Comments

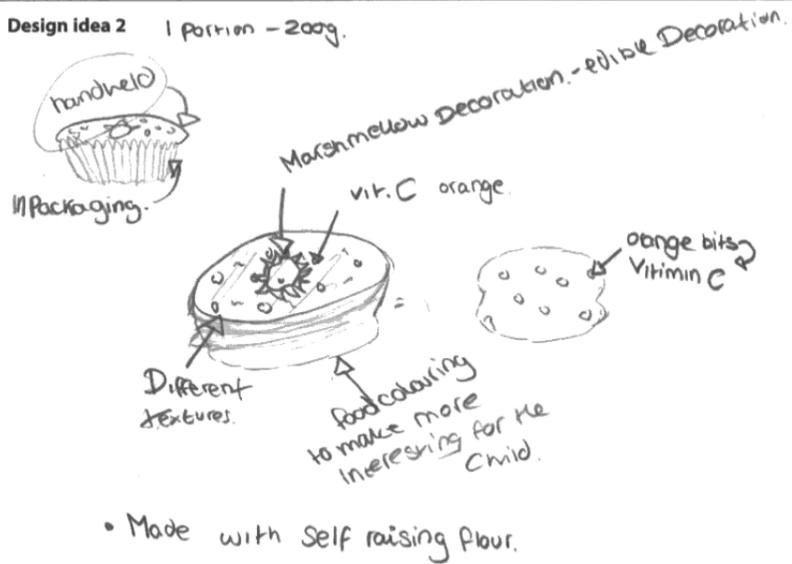
Annotation is clear and concise indicating how the design has met each specification point.

Design idea 1 | 1 portion = 200g.



(8)

Design idea 2 | 1 portion = 200g.



(8)

(Total for Question 12 = 16 marks)

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Examiner Tip

Use the specification as a checklist whilst annotating each different design.

Question 13(a)

The product analysis question focussed initially on the property and justification of the shortcrust pastry base for the fruit flan. Answers varied enormously in accuracy and application of understanding linked to sensory, physical and structural properties of the pastry component of the fruit flan.

Product analysis question linked to the property and justification of the shortcrust pastry base.

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The property is linked to the texture of the shortcrust pastry base (sturdy/solid). The justification is that it holds the filling without collapsing/seeping out.

Property	Sturdy - solid
Justification	It can hold the substance inside without seeping out (sturdy case)

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Examiner Tip

It is not possible to have a justification without a property.

Question 13(b)

The use of the slicing technique for the apple layer was well received by most candidates. Answers focussed on thickness, shape, consistency, uniform cooking, design, decoration and speed.

Question 13(c)

The use of a glaze on the fruit flan provided some good answers which focused on aesthetics, appearance or increasing shelf life, with a linked explanation to preventing discolouration or improving the sensory properties of the food product.

Question 13(d)

13(d)(i)

Marks varied considerably for this sub section, where candidates had to explain why the fruit flan was successful at meeting two specification points: eaten hot or cold and have a storage life of five days. Many lower ability candidates just repeated the question and were unable to receive any marks for this section. More able students applied their understanding of food components by identifying that the fruit flan was already cooked and would therefore retain its shape and structure if served chilled from the fridge or warm from the oven, without any risk of food poisoning.

13(d)(ii)

This question provided differentiated outcomes depending on the ability of the student. Related explanations to high risk foods, growth of micro-organisms, preservation techniques, storage conditions and equipment provided some good technical answers from the more able students. Simplistic responses tended to focus on where the fruit flan might be stored, but without any linked explanation.

Question 13(e)

As an extended writing exercise linked to QWC, this question proved to be highly successful for many candidates. By using the level descriptors outlined in previous sample assessment materials, candidates generally demonstrated accurate technical vocabulary linked to food technology and a good understanding of the evaluation process. Where writing communicated answers effectively, with clarity and organisation, candidates were rewarded with high marks. It is possible to provide 3-4 well explained evaluated points to achieve the high marks. However, many candidates provided many more as either a bullet pointed list or paragraph format focussing on the main comparisons and similarities between the two recipes. To move the response from a weak/average answer to one that is worthy of full marks, requires explanation of each comparison together with clear, effective communication throughout the response.

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Question 14(a)

The first parts of this question were very well received by most candidates and gave them opportunities to display good subject knowledge linked to environmental issues linked to the design of packaging.

Question 14(b)

Information required by law on a food label was completed effectively and most candidates achieved at least two marks with this question.

The command of this question is asking the candidate to give three pieces of information that are required by law on a food label.



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Three relevant legal pieces of information are presented by the candidate.

(b) Give **three** pieces of information that are required, by law, on a food label. (3)

- 1 Name of product + company
- 2 Nutritional information if they make a claim e.g. low in fat
- 3 company's address

(c) Quorn is a protein food produced by biotechnology. Quorn is often used by



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Examiner Tip

Often more than one word is needed to achieve one mark.

Question 14(c)(i)

Biotechnology proved to be a challenging issue for many candidates. However, the initial part to this question was generally answered well with informative answers relating to personal dislike of meat, ethical reasons, cultural and religious beliefs and health reasons. Where a statement was linked to a well explained reason, candidates achieved the full marks.

Question 14(c)(ii)

A collection of disappointing responses made this an unpopular question with many candidates misunderstanding the question or failing to provide a response. Where more able candidates could explain knowledgeably the affects of the GM process, cross contamination of crops, cost implications and the unknown long term affects of these processes linked to the relevant disadvantages to the consumer, it was possible to award full marks.

Biotechnology is a modern development in Food Technology, with many issues surrounding its use within food production.



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Examiner Comments

This is part of a linked sub section of questions, where the stem question has been used to focus candidates on the main topic ; biotechnology. This question is towards the end of the paper, offering a good example of a ramped style of questioning.

(ii) State **two** disadvantages to the consumer of producing food by biotechnology. (2)

1. The food isn't natural.
2. It has been Genetically modified.



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Examiner Tip

Use the command words to identify what the examiner is looking for in an answer. State is a short answer command word.

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Question 14(c)(iii)

This provided an interesting range of answers linked to the benefits to the manufacturer of producing food by biotechnology. Statements linked to examples of new foods, improved nutritional, physical, functional, sensory and growing characteristics allowed candidates the opportunity to demonstrate their understanding of modern food technology and the issues associated with these developments. This was a demanding question designed to stretch and challenge the A/B candidates within the 2010 cohort.

Question 14(d)

Safety and quality are two important issues within the theoretical and practical elements of Food Technology. Answers needed to show a balanced discussion of both of these points (at least one answer linked to safety issues and one to quality issues) in order to access the higher marks. Candidates showed excellent practical understanding of basic hygiene principles and procedures that would be carried out by food manufacturers. Simplistic answers linked to personal hygiene and food hygiene were generally listed or bullet pointed by weaker students. However, where candidates considered the use of these procedures to make food safe to eat by eliminating the risk of cross contamination and food poisoning through the reduction of microbial growth or natural decay, it was possible to access the higher marks. Many candidates discussed the relevance of HACCP, quality control, quality assurance, dimensions and tolerances. The level descriptors used as part of the QWC mark scheme allowed flexibility for the number and range of discussion, where candidates could show understanding of these topics, clarity of discussion and good use of technical vocabulary. This question was completed by virtually all candidates with a range of differing outcomes.

This is an extended writing question, giving students the opportunity to identify a range of issues with associated developments showing an understanding of the issues concerning safety and quality within food production.



This is a strong answer demonstrating a good understanding of safety and quality issues, references to technical D&T vocabulary and clarity of written communication.

*(d) Consumers expect their food to be safe and of consistent quality.

Discuss the ways in which food manufacturers can ensure that all the products they make or serve are safe **and** of consistent quality.

(6)

Manufacturers can ensure consistency by using CNC (computer numerical control). This ensures that every product is the same and to that of a same quality. They measure ingredients and make sure / check that the appearance, texture and quality is ~~the~~ to the right standards.

Manufacturers check the safety of the products made is completely satisfactory. They can do this by completing processes like metal detectors, checking that no 'foreign' objects are in foods making them unsafe. They may also complete product analysis where by they pull certain or random samples off the production line and check all the ingredients are of the correct proportion.



At least one answer from safety issues and one answer from quality issues are needed in the discussion.

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Centres need to prepare candidates for this exam by ensuring that they have a full understanding of the requirements of different question types: name, state, give, describe, outline, evaluate and explain. Often, candidates had difficulty in achieving the full marks for questions asking for an explanation, because answers were not supported with relevant examples or reasoning. Additionally, some of the technical questions relating to food products and nutritional understanding were incorrect or vague. Centres must focus on technical understanding, to enable candidates to access the higher marks.

Marks were scored evenly across all areas of the paper, with effective differentiation across the paper.

Grade Boundaries

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