



General Certificate of Secondary Education

Design and Technology (Food Technology) 3542/H

Full Course

Higher Tier

Report on the Examination

2008 examination - June series

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Set and published by the Assessment and Qualifications Alliance.

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Dr Michael Cresswell Director General.

General Comments

This was a successful year where the majority of candidates appeared to be entered for the correct tier. However, there is still a tendency for many candidates to use inappropriate terms which do not gain credit: for example 'gone off' instead of 'deteriorate', 'stale' or 'sour', 'fresh' instead of referring to 'shelf life', 'germs' instead of 'bacteria', 'wash' instead of 'clean' and the use of 'health and healthier' without giving further information.

The main area for centres to focus on in the future is in encouraging their candidates to read the questions carefully. Better focused candidates have demonstrated this by underlining key terms in the rubric; there are no marks for this but it is a commendable strategy and does focus candidates. Centres should also ensure that preparations cover the whole of the specification not just those topics shown on the preparation sheet, remembering that the preparation sheet only gives indication that relates to **some** of the questions. Candidates will be tested on their knowledge of the entire specification in the examination paper.

Centres this year should be congratulated as few candidates omitted questions and the majority of candidates attempted the whole paper, with legibility much improved from 2007.

Full Course Higher Tier

Answers were frequently full and to the point, although it was obvious that examination technique is still an area for further development by centres. Candidates should be advised to slow down and read questions carefully, focusing on key instructions, such as 'describe' or 'explain'. However, literacy was much improved this year and many candidates showed good sketching and annotation skills as a way of communicating their design ideas. It was also pleasing to see a large number of centres where the needs of special diets and consumer labelling had been well taught.

Question 1

- (a) This question was well done by the majority of candidates who gained full marks and could successfully identify a range of uses for the internet when researching. Candidates were comfortable in the use of terminology such as search engines, websites and e mail.
- (b) Most candidates could identify different types of electronic media correctly. Many gave extended responses.

Question 2

- (a) Candidates gave a variety of responses to this question. Most candidates were able to identify that packaging is used for a number of reasons. However, too many candidates still refer to products being kept 'fresh' rather than referring to products' 'extended shelf life' or to 'prevent deterioration'. The majority gained at least 4 marks for this question.
- (b) Most candidates gave correct answers, particularly those relating to recycling, moisture resistant and low cost. However, many also failed to gain full marks as whole answers related to generic reasons, e.g. saying 'to contain products' which is a function of all packaging. Many gave a function related to the use of a bottle or carton instead of the packaging material. A common error by candidates was to think that both materials were good or bad insulators.

- (c) (i) Most candidates answered correctly and understood the need to keep milk chilled for safety reasons. Some excellent responses referred to slowing down growth of bacteria but poor use of terminology, for example the use of terms such as 'germs' and referring to milk 'going off' meant other candidates failed to gain full marks.
- (ii) Correct answers referred to the use of thermometers. A large proportion of candidates described the use of alarm, regular control checks and CAM as aids to temperature control. Few mentioned maintenance of equipment, but a high number gained full marks.

Question 3

- (a) Some excellent annotated sketches were produced. These had detailed descriptions of design ideas for a biscuit with a decorative coating. Many sketches were coloured in, giving dimensions and information about ingredient choices that supported special dietary needs. However, there were many whole centres where candidates did not follow the given criteria or attempt to annotate in relation to the criteria. A list of ingredients next to the sketch is not appropriate as relevant annotation without further information on ingredient choices being given.
- (b) (i) Most candidates gained high marks when describing how their design idea met the needs of special diets. Candidates showed a detailed knowledge of the needs of diabetics, vegetarians and those with allergies. Other candidates referred only to a general healthy eating approach and thus gained a small number of marks.
- (ii) Almost all candidates gained full marks for describing how they had included a range of flavours.
- (c) (i) Most candidates attempted to give a definition of the term product specification. Most did so successfully, even the less able candidate identified that it was a list of points that described a successful product.
- (ii) Centres varied in their ability to write a product specification for the design idea. This was either completed successfully and candidates gained full marks or less successfully where candidates scored no marks at all, some just repeated the design criteria given at the start of the question and did not gain any marks for this
- (iii) Most candidates were able to explain why it is necessary to compare the product with the specification. The most common response was to identify improvements that would make product suited to the consumers. Many had benefited by linking this to their experience of evaluating in the coursework element, which is an excellent skill.
- (d) Descriptions of two different control checks were well done by most candidates. A range of different checks were given and most answers were extended answers.
- (e) Production plans were often thorough and detailed. Details were given about chosen design ideas and candidates are to be congratulated on their logical approach and clarity of answers. The majority of candidates gained eight or more marks in this section. Where marks were lost, it was generally due to the omission of hygiene, safety points and temperatures.

Question 4

- (a) Candidates gave detailed reasons about how ingredients suited a healthy option diet. A good working knowledge of the nutritional value of foods was evident. However, the majority of candidates incorrectly identified that sugar/sweeteners reduce the fat content and that saturated fat and polyunsaturated fats are low in fat.
- (b) (i) Most candidates were aware that these ingredients are raising agents and enabled the mixture to rise but very few mentioned the unpleasant taste or colour from bicarbonate of soda or the chemical reaction of the two raising agents.
- (ii) Some of candidates understood the need to act quickly to ensure raising agents would activate during cooking and some could correctly identify carbon dioxide as part of the reaction. Only a small proportion of candidates gained the full two marks.
- (c) The majority of candidates gained high marks in this question and were aware of a range of causes leading to the named problems. Most answers were detailed and showed a high standard of knowledge; poorer responses gave repetitive answers or gave vague reference to 'incorrect temperature' or 'not stored properly'. These candidates' responses were more like the level of answers given on the Foundation Tier.
- (d) Most candidates gave thorough, meaningful answers and were well aware of the meaning of the storage instructions given. Those gaining fewer marks often gave vague responses relating to 'making the consumer ill' or 'food will not be fresh'. Answers relating to less deterioration in food, food poisoning prevention and sensory characteristics of the food were the better responses and gained higher marks.

Question 5

- (a) (i) Very few candidates failed to gain full marks, identifying the ingredients giving colour to the product correctly. Many gave further details relating to caramelisation although this was not needed to gain marks.
- (ii) Most candidates gained at least one mark here but majority of answers gave 'more' or 'different fruits' without giving firm examples or describing further. Some candidates identified answers relating it to the sensory profile as a guide.
- (iii) The developments related to texture were much better answered than the previous question. Most candidates gave detailed responses referring to additions that would improve the texture and named sensory attributes, e.g. 'crunchy', 'soft', 'contrasting textures'. Some also correctly mentioned the use of different toppings as a means of adding texture.
- (iv) Descriptions of toppings were well answered with most responses gaining full marks. Many centres correctly used terminology such as enrobing and latticed.
- (b) (i) Many candidates gained marks for their descriptions on the use of sensory testing. They showed a good knowledge of test procedures and reasons why testing takes place. Others gained credit when they gave examples from the profile shown.
- (ii) Well answered with almost all candidates gaining full marks.

Question 6

- (a) This question was done well, with most candidates gaining high marks. Most candidates gave detailed knowledge of a range of health and safety. Those gaining fewer marks tended to focus on the personal hygiene of the worker rather than their safety and did not link their answer to the use of electrical equipment.
- (b) Most candidates understood what a tunnel oven was and why it is used. Better answers detailed the saving of time and costs to the manufacturer and the consistency of the product. It was obvious that some whole centres, however, had little knowledge of tunnel ovens and candidates were guessing, with the help of the image given. This question was generally done well though.

Question 7

- (a) This was poorly answered by most candidates who did not show adequate knowledge of high risk foods. Those that scored well had identified the links to food contamination and food poisoning. Some referred to cream being a high risk food because 'it causes heart disease if eaten in great quantities'. Very few noted the short shelf life or only mentioned it was high risk 'if not kept in the right conditions' but did not give further information leaving the answer vague. Most candidates only gained one mark.
- (b) Only the more able candidates, who read the question carefully, gained high marks. The majority gained only 3 marks and answers frequently referred to 'throwing away', 'taking foods back to the shop' or 'making sure its clean': these did not answer the question which was about preventative measures.

Question 8

(a) – (c) Candidates answered these questions very well, often showing a detailed knowledge of red tractor, vegetarian and Fair trade labelling. However, many were confused between vegetarians and vegans. It was pleasing to see that the majority of centres had prepared candidates well and that candidates understood the issues surrounding Fair trade. However, there were whole centres where candidates struggled to gain more than 4 marks overall and were obviously guessing at their answers. Good use of the preparation sheet could have supported these candidates.