

Examiner's Report

Principal Examiner Feedback

Summer 2018

Pearson Edexcel GCE Advances Subsidiary
In D&T: Food Technology (6FT02)
Paper 1 D&T in practice

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General Observations

There were not a large number of entries for this examination this year, and it is assumed that most candidates were resitting this unit. This hypothesis was supported in some cases as the additional knowledge gained from having covered the A2 unit was evident in some responses. However, it was also the case that many candidates could not recall some topics in the depth required. The questions on this year's paper enabled students to demonstrate detailed knowledge in a variety of topics. Correct application of increased use of technical vocabulary enables students to access the higher marks. Many good examples of essay plans were seen, helping candidates structure their responses to these extended writing questions.

Question 1

Q1(a) – a straightforward knowledge question which was answered correctly by most students. The most popular response was fruit.

Q1(b) – also a one word response question that was well answered, with milk or cheese being the most common foods named.

Q1(c) – most candidates showed very good knowledge of this topic and many gained full marks. Some were able to state the correct percentage of sugar required.

Q1(d) – not all candidates interpreted this question correctly. The focus was to describe the characteristics of amylose as a thickening agent. Some candidates outlined the process of gelatinisation. To gain marks in this question candidates needed to explain how the characteristics of amylose affect the rate of forming and the stability of a gel.

Question 2

Q2(a)(i) – many candidates demonstrated a good knowledge of this stage of the bacterial life cycle, able to state that growth of bacteria is slow.

Q2(a)(ii) – this part was less well answered with many gaining only 1 mark for stating that cells growing equals cells dying.

Q2(b) – many students demonstrated a good knowledge in this question. The most popular conditions described were pH and temperature. Higher ability candidates were able to differentiate between the conditions required for the three different micro-organisms, and give accurate pH numbers. When discussing temperature, many candidates described the effects of freezing on bacterial growth in detail.

Question 3

Q3(a) – an evaluation question requires at least one advantage and one disadvantage to gain full marks. Most candidates evaluated this topic well and gained full marks.

Q3(b)(i) – a good differentiation question. Some candidates gave a full description gaining both marks. Most were able to state that an anti-caking agent prevents clumping.

Q3(b)(ii) – very few candidates gained full marks in this question, but many knew that a sequestrant reduces oxidative rancidity.

Question 4

Q4(a) – this question required one benefit of blanching that was explained, not two reasons for blanching. Many candidates were able to gain full marks; and the most common response was that blanching inactivates enzymes, which prevents undesirable changes in colour, texture and flavour.

Q4(b) – many of the responses to this question were of a lower standard, which might be suggestive that candidates were mostly resitting this paper. Some responses incorrectly discussed how to freeze foods, from production to the home. Those who tried to describe the freezing cycle often gave muddled responses. Many used the correct terminology e.g. thermal arrest time, but could not accurately explain this term.

Q4(c) – as a 6 mark question, this enabled candidates to demonstrate detailed knowledge of the importance of fast freezing. Higher ability students gave comprehensive answers which described the damage to cell structure by large ice crystals in depth. The consequent effect on the texture of foods was explained well by those who gained full marks.

Question 5

Q5(a) – at this stage of the paper, the responses needed to be accurate and specific to the question. Therefore, no marks were given for vague answers such as fat or fatty acids. At this level candidates should know that fish oils contain unsaturated fatty acids. For the same reason no marks were given for Omega 6

Q5(b) – whilst most candidates were able to state that an emulsifier prevents the separation of oil and water, it was surprising that very few explained that the emulsifier surrounds the droplets to achieve this. Those who gained full marks went on to describe the fact that an emulsifier is partly hydrophobic and partly hydrophilic.

Q5(c) – most candidates knew that water must be present for hydrolytic rancidity to occur and many knew that enzymes accelerate the process. A good differentiation question in which most candidates gained at least one mark.

Question 6

Q6(a) – the process of spray drying was not recalled well. Whilst most candidates could state it involved heat drying a liquid to a powder, the details of the process were not given. Higher ability candidates referred to the use of an atomizer, and went on to explain that the powder is often rewetted to improve solubility.

Q6(b) – most candidates demonstrated a good knowledge of sterilisation, a topic covered in the A2 unit as well as at AS level. As an evaluation question, it requires at least one advantage, and one disadvantage, for full marks. Most candidates achieved this requirement; stating that it is a long term method of preservation, and then describing the effects on sensory characteristics. Few commented on the need to refrigerate after opening.

Question 7

Q7(a) – a straightforward question which gave candidates the opportunity to demonstrate a detailed knowledge of HACCP. As a “discuss” question at the end of the paper a list of the principles without any further explanation was not sufficient. Very few candidates restricted their marks in this way. Overall this question was comprehensively answered, and many candidates gained full marks.

Summary

Based on student’s performance on this paper, the following points may assist centres in the delivery of this unit:

- Familiarise students with all topics on the specification prior to the examination.
- Encourage students to read the stem of a question and also to underline key words. This may focus their thoughts and ensure they give the correct response for that question.
- Ensure that students correctly interpret the command words used in the questions. This should be combined with checking the number of marks allocated to assist in planning their response.
- For longer response questions students may benefit from writing a plan so that their answer is written in a logical order.
- Whilst answering previous exam questions is a useful tool for examination preparation, students need to realise that the focus will change and ensure they are answering the question that has been set in their examination.