



**General Certificate of Education**

**Health and Social Care  
8621/8623**

**HC05      Nutrition and Dietetics**

**Report on the Examination**

*January 2010*

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## HC05: Nutrition and Dietetics

The vast majority of candidates attempted all parts of all the questions although weaker candidates often produced vague responses lacking in detail, reasoning and the appropriate use of technical language. Higher ability candidates tended to score well by producing detailed responses which were reasoned coherently.

### Question 1

Generally candidates did well in both of parts (a)(i) and (a)(ii). Most were able to explain the effects of a low protein diet for a 14-year-old male in terms of reduced growth, maintenance and repair of body tissues, but fewer covered the likely effects on hormone and antibody production. Weight gain, increased risk of dental caries and type 2 diabetes were the answers most likely to gain marks in part (a)(ii).

In part (b) most candidates were able to make appropriate suggestions for high protein and high sugar foods. Weaker candidates commonly suggested carbon, oxygen and/or hydrogen as incorrect responses in part (c).

Relatively few candidates recognised that adding more fresh fruit to Zac's diet would probably increase the sugar content of the diet, but the majority recognised the micronutrient benefits of the suggestion. Weaker candidates often suggested that the sugar in the fresh fruit, being "healthy", would benefit Zac.

### Question 2

As on previous questions of this nature, the majority did well in part (a)(i), but tended to be more challenged by part (a)(ii). The majority concluded that Vitamin B2 and iron were insufficient, but weaker candidates were more challenged by the levels of Vitamin A being adequate or in very slight excess and Vitamin K being adequate or very slightly deficient. The effects of Vitamin A and iron were generally well known, but Vitamins B2 and K rather less so. Suggestions for named foods to improve the diet were generally sound in part (b).

There were many sound answers in part (c) giving the reasons why cholesterol is needed in the diet.

### Question 3

Most candidates gained at least four marks in part (a), with very few repeating antioxidants from the stem of the question. A minority, however, did produce the same reason for the different additives they named and consequently failed to gain the second mark available.

Part (b) produced a good range of responses with many candidates gaining at least half of the marks available. Candidates generally covered age, palatability, ease of preparation, level of physical activity, health issues including allergies and cultural beliefs in their answers. Weaker candidates often restricted their answers to a consideration of the different macro and micronutrients needed in a balanced diet.

#### **Question 4**

Many candidates gained over half marks in part (a) by drawing conclusions between the different types of food poisoning outbreak and between the two years' data.

Part (b), as anticipated, proved to be more challenging with relatively few able to suggest that the differences in reported cases maybe due to the different food sources eaten, the resistance or vulnerability of the food poisoning organisms to cooking or processing or the severity or otherwise of the symptoms they cause.

Candidates generally did well in part (c) when explaining why the young and the old are more at risk from food poisoning and in part (d) when explaining how refrigerating foods reduces the risk of food poisoning. Weaker candidates often suggested, however, that refrigerating to low temperature would kill food-poisoning bacteria

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