

General Certificate of Education
January 2008
Advanced Subsidiary Examination



HEALTH AND SOCIAL CARE
Unit 5 Nutrition and Dietetics

HC05

Tuesday 15 January 2008 9.00 am to 10.30 am

For this paper you must have:

- an 8-page answer book.

Time allowed: 1 hour 30 minutes

Instructions

- Use blue or black ink or ball-point pen.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is HC05.
- Answer **all** questions.
- Do all rough work in the answer book. Cross through any work you do not want to be marked.

Information

- The maximum mark for this paper is 60.
- The marks for questions are shown in brackets.
- You will be marked on your ability to use good English, to organise information clearly and to use specialist vocabulary where appropriate.

Answer **all** questions.

There are 15 marks for each question.

1 Alex is 10 years old. Her diet is low in proteins but high in saturated fats.

- (a) Explain the likely effects on Alex's health and development if she continues eating a diet which is
- (i) low in proteins (3 marks)
 - (ii) high in saturated fats. (3 marks)
- (b) (i) Suggest **two** different foods Alex could eat to increase the protein content of her diet. (2 marks)
- (ii) Give **one** example of a food high in saturated fat. (1 mark)
- (c) All protein and fats contain carbon.
- (i) Name **two** other chemical elements which both proteins and fats contain. (2 marks)
 - (ii) Name a chemical element in protein which is not found in fat. (1 mark)
 - (iii) Explain the difference between saturated and unsaturated fats. (3 marks)

2 Ahmed is 60 years old. Analysis of his typical dietary intake produced the results shown in the table below. The Dietary Reference Values (DRVs) for males aged 35–64 years are also shown.

	Ahmed's typical daily intake	Dietary References Values (DRVs) Males 35–64 years
Vitamin B1 (mg)	0.65	1.0
Vitamin C (mg)	19.4	30
Iron (mg)	9.8	10

- (a) (i) What conclusions can be drawn about Ahmed's daily intake of the three micronutrients from the information in the table above? (3 marks)
- (ii) Explain the likely effects on Ahmed if his intake of the three micronutrients remains at these levels. (6 marks)

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- (b) (i) Give **one** food which is a good source of vitamin B1. *(1 mark)*
- (ii) Give **one** food which is a good source of vitamin C. *(1 mark)*
- (iii) Give **one** food which is a good source of iron. *(1 mark)*
- (c) It is recommended that adults drink two to three litres of water each day. Give **three** different reasons why. *(3 marks)*

3 Food product labels often show that preservatives have been added to the foods. Preservatives inhibit the action of enzymes and microbes and so increase food storage time.

- (a) Name **two** types of food additives other than preservatives. For each food additive give **one** different reason why it is used. *(4 marks)*
- (b) (i) Name **two** foods which commonly cause allergic reactions. *(2 marks)*
- (ii) Name **two** different types of food intolerance. *(2 marks)*
- (c) Outline how dietary needs may be affected by:
- (i) level of physical activity *(3 marks)*
- (ii) pregnancy. *(4 marks)*

Turn over for the next question

4 (a) Briefly explain why the following are good practices when preparing food:

(i) using different knives for cooked and raw meats (2 marks)

(ii) ensuring foods are cooked for the recommended time at the correct temperature (2 marks)

(ii) cleaning all kitchen work surfaces thoroughly. (2 marks)

(b) A study of food poisoning outbreaks caused by one type of bacteria gave the following results.

Year	Number of Reported Cases 2003–2005		
	Area 1	Area 2	Area 3
2003	2300	7900	3600
2004	2690	5900	3820
2005	2450	5910	4040

(i) What conclusions can be drawn from the data? (6 marks)

(ii) Give **three** different client groups who are at high risk from food poisoning. (3 marks)

END OF QUESTIONS