General Certificate of Education
June 2008
Advanced Subsidiary Examination

ASSESSMENT and QUALIFICATIONS ALLIANCE

HEALTH AND SOCIAL CARE **HC05**
Unit 5 Nutrition and Dietetics

Wednesday 4 June 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 black ink or black 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 Gage is a 45-year-old male. His diet is high in cholesterol, especially harmful low density lipoproteins (LDL), but low in carbohydrates.

(a) (i) Explain the likely health problems for Gage if he continues to eat a diet high in low density lipoproteins (LDL). *(4 marks)*

(ii) Give **two** useful effects of cholesterol in the body. *(2 marks)*

(b) (i) Suggest **three** foods Gage could eat to increase the carbohydrate content of his diet. *(3 marks)*

(ii) Name **two** different types of carbohydrate. *(2 marks)*

(iii) What is the main function of carbohydrates? *(1 mark)*

(iv) Give the basic chemical composition of carbohydrates. *(3 marks)*

2 Macey is 12 years old. Her typical daily intake of three dietary components is shown in the table below. The Dietary Reference Values (DRVs) for females aged 11–14 years are also shown.

Dietary Component	Macey's typical daily intake	Dietary Reference Values (DRVs) Females 11–14 years
Protein	34.5 g	41.2 g
Calcium	620 mg	800 mg
Vitamin A	610 µg	600 µg

(a) (i) What conclusions can be drawn about Macey's typical daily intake of the three dietary components? *(3 marks)*

(ii) Explain the likely effects on Macey if her intake of these three dietary components remains at these levels. *(6 marks)*

(b) (i) Give **one** example of a food which is a good source of protein. *(1 mark)*

(ii) Give **one** example of a food which is a good source of calcium. *(1 mark)*

(iii) Give **one** example of a food which is a good source of vitamin A. *(1 mark)*

(c) Macey's diet must also contain non-starch polysaccharides (NSP). Why is a regular intake of non-starch polysaccharides (NSP) important? *(3 marks)*

3 (a) Apart from nutritional value, suggest **three** other points to consider when dietary planning. *(3 marks)*

(b) Stella is diabetic.

(i) Explain the dietary implications for Stella caused by her diabetes. *(4 marks)*

(ii) State of health is one factor which affects an individual's nutritional requirements. Give **three** other factors which also affect the nutritional requirements of individuals. *(3 marks)*

(c) Explain, with reference to **two** foods, what is meant by food allergies. *(5 marks)*

4 A study of reported food poisoning outbreaks caused by three different types of Salmonella produced the following data.

	Salmonella types		
Reported cases 2003–2005	**Type 1**	**Type 2**	**Type 3**
2003	201	978	1490
2004	133	830	1320
2005	152	670	1143

(a) What conclusions can be drawn from the information in the table above? *(7 marks)*

(b) Explain how the following examples of good practice help prevent food poisoning:

(i) storing sandwiches at a temperature no higher than 5 °C *(2 marks)*

(ii) wearing disposable plastic gloves when preparing food *(2 marks)*

(iii) not eating foods which have passed their 'use by' dates *(2 marks)*

(iv) wiping up spillages promptly. *(2 marks)*

END OF QUESTIONS

There are no questions printed on this page