

General Certificate of Education
June 2006
Advanced Subsidiary Examination



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

HC05

Tuesday 13 June 2006 1.30 pm to 3.00 pm

For this paper you must have:

- an 8-page answer book

You may use a calculator.

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 marked.

Information

- The maximum mark for this paper is 60.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers. Quality of Written Communication will be assessed in answers written in continuous prose.

Answer **all** questions.

Each question carries 15 marks.

1 Katrina is sixty years old. Her diet is low in non-starch polysaccharides (NSP) and high in saturated fats.

(a) Explain the likely health problems for Katrina of eating a diet:

(i) low in non-starch polysaccharides (NSP); *(3 marks)*

(ii) high in saturated fats. *(3 marks)*

(b) Describe the basic chemical composition of saturated fat. *(5 marks)*

(c) Suggest, with reference to named foods, how Katrina could improve her diet. *(4 marks)*

2 Zac is sixteen years old. His typical daily diet includes the nutrients detailed below. The Dietary Reference Values for these nutrients for males 15-18 years are also shown in the table.

| | Zac's typical daily intake | Dietary Reference Values for males 15-18 years |
|-----------------|-----------------------------------|---|
| Protein (g) | 60 | 55.2 |
| Vit A (mg) | 452 | 700 |
| Vit B2 (mg) | 1.4 | 1.3 |
| Phosphorus (mg) | 450 | 775 |

(a) (i) From the information in the table, what conclusions can be drawn about Zac's typical daily intake? *(4 marks)*

(ii) Explain how the intake of each of the four nutrients at these levels might affect Zac. *(9 marks)*

(b) Suggest two different factors, other than Zac's age, which help determine his dietary needs. *(2 marks)*

- 3 (a) Valena suffers from a food allergy which means that she cannot eat nuts. Eating nuts would cause anaphylactic shock for Valena.
- (i) Name two different foods causing allergic reactions. *(2 marks)*
- (ii) Outline two other common allergic responses apart from anaphylactic shock. *(2 marks)*
- (b) Give two different examples to show how each of the following religious beliefs might affect a person's diet:
- (i) Hinduism; *(2 marks)*
- (ii) Muslim. *(2 marks)*
- (c) Briefly outline how being a diabetic requires a modified diet. *(4 marks)*
- (d) Religious belief and health needs might influence the dietary planning for an individual.
- Give three different factors which may also be considered when planning a diet for an individual. *(3 marks)*

- 4 (a) Explain how each of the following health and safety precautions help prevent outbreaks of food poisoning:
- (i) storing food at the correct temperature; *(3 marks)*
- (ii) thawing food thoroughly before cooking; *(3 marks)*
- (iii) keeping raw food apart from cooked foods. *(3 marks)*

The table below shows the reported incidents of food poisoning in England and Wales over three years.

| Cause of food poisoning | 2001 | 2002 | 2003 |
|--------------------------------|-------------|-------------|-------------|
| Campylobacter | 56 392 | 46 630 | 44 832 |
| Salmonella | 16 474 | 14 738 | 14 887 |
| E.coli | 768 | 595 | 675 |

- (b) What conclusions can be drawn from the information in the table? *(6 marks)*

END OF QUESTIONS

There are no questions printed on this page