



Rewarding Learning

ADVANCED SUBSIDIARY (AS)
General Certificate of Education

Centre Number

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Candidate Number

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Nutrition and Food Science

Assessment Unit AS 1

assessing

Principles of Nutrition

MV18

[SNF11]

Assessment

Assessment Level of Control Tick the relevant box (✓)

Time

Controlled Conditions	
Other	

1 hour 30 minutes, plus your additional time allowance.

Instructions to Candidates

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

Answer **all** questions in Section A and **two** questions from Section B.

You must answer the questions in the spaces provided.

Do not write on blank pages.

Complete in black ink only.

Information for Candidates

The total mark for this paper is 80.

Quality of written communication will be assessed in Questions **7–9**.

Figures in brackets printed at the end of each question indicate the marks awarded to each question or part question.

Section A

Answer **all** questions in the spaces provided.

- 1 (a) State the amount of energy provided by 1 g of protein.
[1 mark]

- (b) Apart from providing energy, outline **two** other functions of protein as a nutrient. [4 marks]

(c) Explain why each of the following may have additional requirements for protein: [4 marks]

school-age children

pregnant women

(d) Outline a situation that could result in negative nitrogen balance and describe the effect of this on the body.
[4 marks]

(e) Compare and contrast dairy products with pulses in relation to versatility. [4 marks]

2 (a) Explain why infants who are breast fed require a daily supplement of vitamin D. [4 marks]

(b) Describe the effects of a prolonged deficiency of niacin on health. [4 marks]

(c) List **three** micronutrients with antioxidant properties. [3 marks]

- 3 (a) Using the table below, assess the contribution of the following foods to iron in the diet. [5 marks]

Food source	Iron content in 100 g
Beef rump steak	3.6 mg
Spinach boiled	1.6 mg
Almonds	3 mg

- (b) Outline the function of iodine and identify **two** valuable food sources. [4 marks]

4 Summarise the potential effects of dehydration.
[4 marks]

5 (a) Describe the protein-sparing effect of carbohydrate. [2 marks]

(b) Explain how the overall glycaemic index (GI) of a meal can change when foods are combined. [4 marks]

(c) Compare the nutritional significance of sugars from fruit juice with sugars from fresh fruit. [4 marks]

- 6 (a) Complete the following table to show the current Dietary Reference Values (DRV) for fat. [2 marks]

DRV for fat as a percentage of energy intake	% daily food energy
Total fat	Not more than _____ %
of which Saturated fat	Not more than _____ %

- (b) Outline **one** example of how DRVs should be used. [3 marks]

Section B

Answer **any two** questions in this section.

Quality of written communication is assessed in this section.

- 7 Discuss the needs of older adults in relation to vitamins and minerals. [12 marks]

- 8 Describe the effects of polyunsaturated fatty acids on blood cholesterol levels and explain how an adult could make changes to their diet to meet the current dietary guidelines for these fatty acids. [12 marks]

- 9 Explain the specific nutritional needs and energy requirements of a couple planning a pregnancy and suggest how to achieve these through appropriate food choices or supplements [12 marks]

SOURCES

Q3(a) . . . © Adapted from *British Diabetic Association*

Q6(a) . . . Data from © *British Nutrition Foundation 2016*

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	
Total Marks	

Examiner Number

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