



Rewarding Learning

ADVANCED

General Certificate of Education

2023

Nutrition and Food Science

Assessment Unit A2 1

assessing

Option A: Food Security and Sustainability

or

Option B: Food Safety and Quality



[ANF11]

WEDNESDAY 14 JUNE, AFTERNOON

TIME

2 hours 30 minutes.

INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number on the Answer Booklet provided.

Choose either Option A or Option B.

Option A: Food Security and Sustainability.

Answer the **one** question in Section A and **three** questions from Section B.

Option B: Food Safety and Quality.

Answer the **one** question in Section A and **three** questions from Section B.

Indicate clearly on your Answer Booklet which option you have chosen.

INFORMATION FOR CANDIDATES

The total mark for this paper is 85.

Quality of written communication will be assessed in **all** questions.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Option A: Food Security and Sustainability

Section A

Answer the **one** question in this section.

- 1 (a) Suggest reasons why some of the environmental claims made by the food industry are not helpful to consumers. [10]
- (b) Comment on the positive impact organic farming may have on climate change and natural resources. [15]

Section B

Answer **three** questions from this section.

- 2 Explore food waste both as an environmental and an ethical issue. [20]
- 3 Explain why it may be more sustainable to choose local independent businesses rather than a large supermarket when buying food. [20]
- 4 Discuss each of the following as possible reasons for global food poverty:
- war and conflict
 - poverty. [20]
- 5 Explain the negative impact of climate change on global food production and security. [20]

Option B: Food Safety and Quality

Section A

Answer the **one** question in this section.

- 1 (a) Outline the potential risks to health in relation to mycotoxins in plants. [10]
- (b) Describe how food traceability systems contribute to safe food production. [15]

Section B

Answer **three** questions from this section.

2 Explain how food manufacturers can minimise the risk of microbial contamination. [20]

3 “Allergic diseases are affecting the lives of more than one billion people worldwide. With an epidemic rise during the last 60 years, their prevalence is expected to reach up to 4 billion in the 2050s.”

Source: © 2022 Singh and Kumar. Climate change and allergic diseases: An overview PMC Creative Commons — Attribution 4.0 International — CC BY 4.0

Consider the possible reasons for this expected increase in food allergies. [20]

4 Explore the controversy surrounding the use of food additives. [20]

5 Explain the role of the Department of Agriculture, Environment and Rural Affairs (DAERA) in relation to animal health and food safety. [20]

THIS IS THE END OF THE QUESTION PAPER

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