



Rewarding Learning

General Certificate of Secondary Education
2022

Centre Number

--	--	--	--	--

Candidate Number

--	--	--	--

Agriculture and Land Use

Unit 1
Soils, Crops and Habitats



GAU11

[GAU11]

MONDAY 6 JUNE, AFTERNOON

TIME

1 hour 15 minutes.

INSTRUCTIONS TO CANDIDATES

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

Write your answers in the spaces provided in this question paper.

Answer **all nine** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 75.

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

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

For Examiner's use only

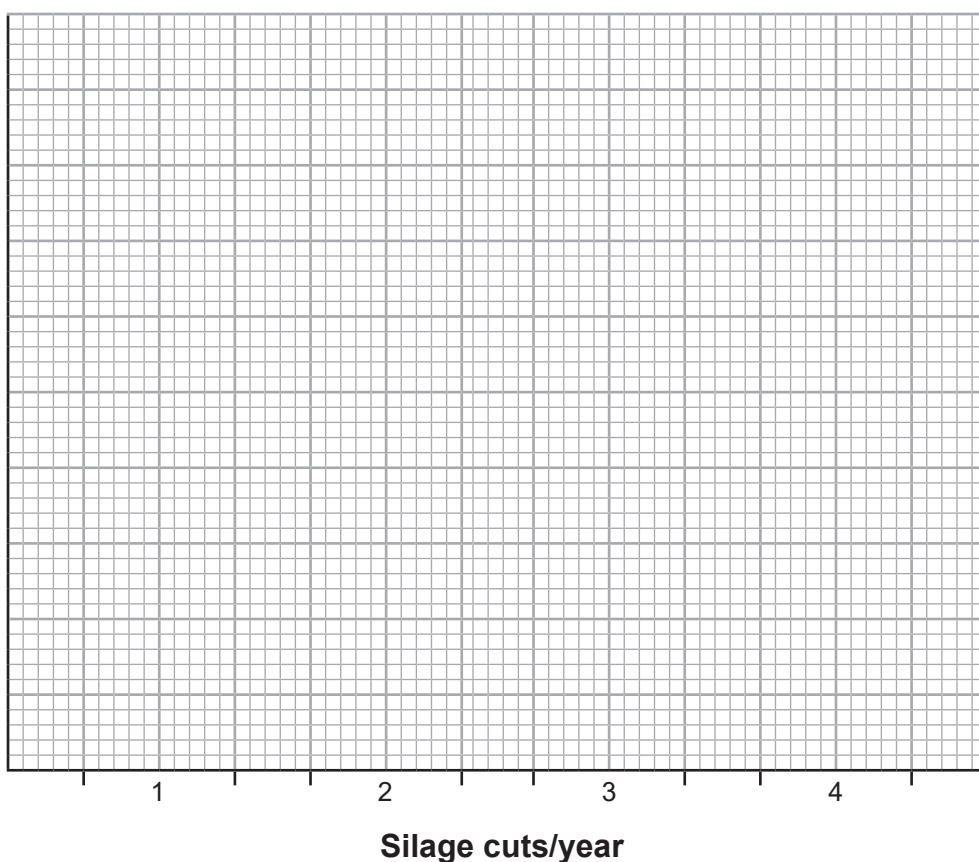
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	

Total Marks	
-------------	--

- 2 (a) A survey of twenty farms was carried out to find the number of grass silage cuts made each year. The results are shown in the table below.

Silage cuts/year	Number of farms
1	2
2	4
3	9
4	5

- (i) Using the grid below, plot a bar chart of **Number of farms** against **Silage cuts/year**. Choose a suitable scale and include a label.



[4]

Examiner Only	
Marks	Remark

- 3 (a) Northern Ireland has a large variety of habitats but only 8% of the land area is covered by forest. The picture below shows a forest in early autumn.



© Getty Images

- (i) What type of forest habitat is shown here?

[1]

- (ii) The red squirrel is a priority species which lives in this habitat. Suggest **one** way in which the red squirrel has adapted to living in this habitat.

_____ [1]

Examiner Only

Marks

Remark

(b) There are several schemes which encourage farmers to plant areas of their farms with native trees.

(i) Name **one** scheme that would pay farmers for planting an area with native trees.

_____ [1]

(ii) Name **two** 'native' tree species that would be planted.

1. _____

2. _____ [2]

(iii) Apart from grant payments, state **two** other reasons why a farmer would decide to plant an area of trees.

1. _____

2. _____

_____ [2]

Examiner Only	
Marks	Remark

BLANK PAGE

(Questions continue overleaf)

- 5 In Northern Ireland over 1500 hectares of maize are grown annually. The photograph below shows maize growing under plastic mulch.



© Getty Images

The use of plastic mulch increases maize seed germination rate.

- (a) Suggest **two** ways plastic mulch increases maize seed germination rate.

1. _____

2. _____

_____ [2]

Weeds can also grow under the plastic mulch.

- (b) Describe and explain how weeds growing under the plastic mulch affects the yield of the maize crop.

Description _____

Explanation _____

_____ [2]

Maize is stored after it is harvested.

- (c) Give **two** ways maize can be stored to make silage.

1. _____

2. _____

[2]

Examiner Only	
Marks	Remark

Farmers who make maize silage will usually make grass silage as well.

(d) Give **two** reasons why farmers may choose to make **both** maize silage and grass silage.

1. _____

2. _____

_____ [2]

Examiner Only	
Marks	Remark

- 6 (a) The picture below shows Strangford Lough, which is an important ASSI.



© Department of Agriculture, Environment and Rural Affairs (DAERA)

- (i) Using your knowledge, complete the sentence below.

ASSI stands for an **Area** of _____

Scientific _____ [2]

- (ii) Strangford Lough is an ASSI. Suggest **two** reasons why you think an area would be given this status.

1. _____

2. _____ [2]

- (iii) Name another ASSI in Northern Ireland.

_____ [1]

- (b) Give **two** ways farmers manage their land differently when farming an area that is protected by ASSI status.

1. _____

2. _____

_____ [2]

Examiner Only

Marks

Remark

BLANK PAGE

(Questions continue overleaf)

8 Flooding is becoming more common in the UK and Ireland. In Northern Ireland it causes, on average, over £15 million of damage each year.

Farming practices are blamed for some of the flooding from rivers in our towns and cities.

(a) Describe **and** explain **two** ways farmers can manage their land to minimise the amount of flooding occurring further downstream.

1. _____

2. _____

_____ [4]

(b) Increased carbon dioxide (CO₂) production is also a major cause of flooding.

(i) Explain how increased carbon dioxide production has increased the risk of flooding in the UK.

_____ [2]

(ii) State **two** actions which farmers can take to reduce the amount of CO₂ being produced on the farm.

1. _____

2. _____ [2]

Examiner Only

Marks Remark

BLANK PAGE

(Questions continue overleaf)

THIS IS THE END OF THE QUESTION PAPER

Permission to reproduce all copyright material has been applied for.
In some cases, efforts to contact copyright holders may have been unsuccessful and CCEA
will be happy to rectify any omissions of acknowledgement in future if notified.