Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/43**

Paper 4 Alternative to Coursework **May/June 2021**

INSERT **1 hour 30 minutes**

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INFORMATION

- This insert contains additional resources referred to in the questions.
- You may annotate this insert and use the blank spaces for planning. **Do not write your answers** on the insert.

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Fig. 1.1 for Question 1

Measuring river velocity

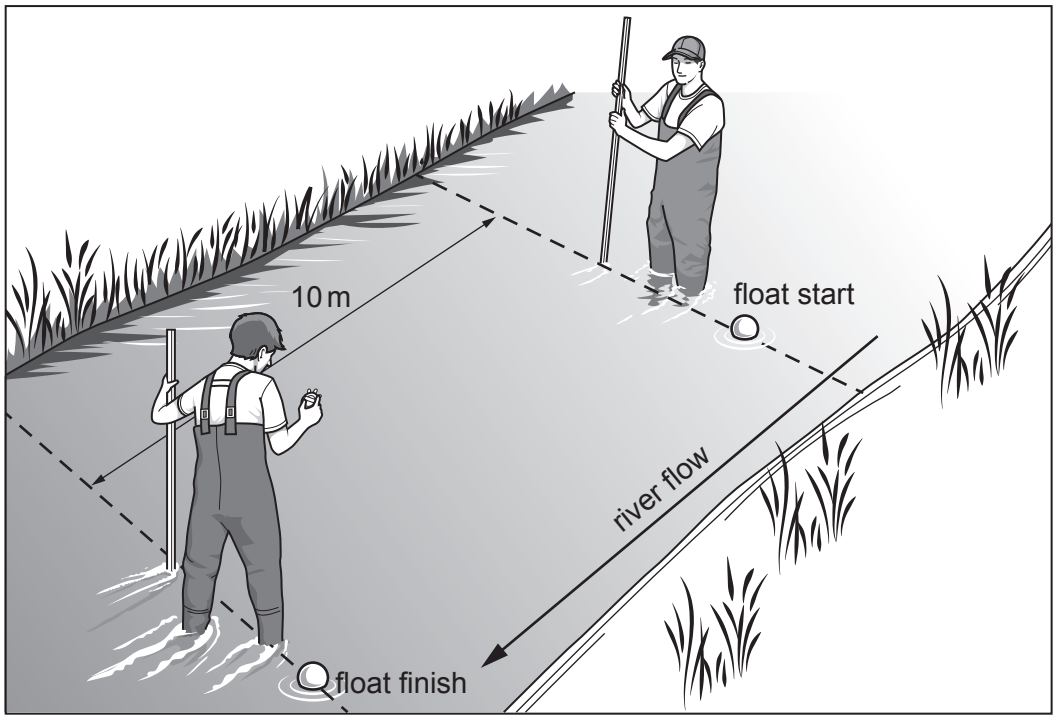


Table 1.1 for Question 1

Results of velocity measurements

		speed of flow (m per second)			
	site	**left side of channel**	**centre of channel**	**right side of channel**	**average**
upstream	1	0.65	0.73	0.90	0.76
↕	2	0.82	0.37	0.70	0.63
downstream	3	0.32	0.62	0.41	0.45

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Fig. 1.2 for Question 1

Measuring river width and depth



Table 1.3 for Question 1

Width and depth measurements

	site	width (m)	average depth (m)
upstream	1	0.93	0.17
↕	2	2.00	0.23
downstream	3	3.45	0.31

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Table 1.5 for Question 1

Gradient measurements

	angle measurement (°)			
site	**measurement 1**	**measurement 2**	**measurement 3**	**average**
1	18	16	15	16.3
2	9	13	10	10.7
3	7	4	8	**6.3**

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Fig. 2.1 for Question 2

The two farms

Bryn Du farm in Wales



Home Park farm in eastern England



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[Turn over

Table 2.1 for Question 2

Climate of the local areas

	average temperature °C		annual rainfall (mm)
	January	July	
Bryn Du farm	4	16	1350
Home Park farm	5	19	550

Fig. 2.2 for Question 2

Students' sketch map of part of Bryn Du farm

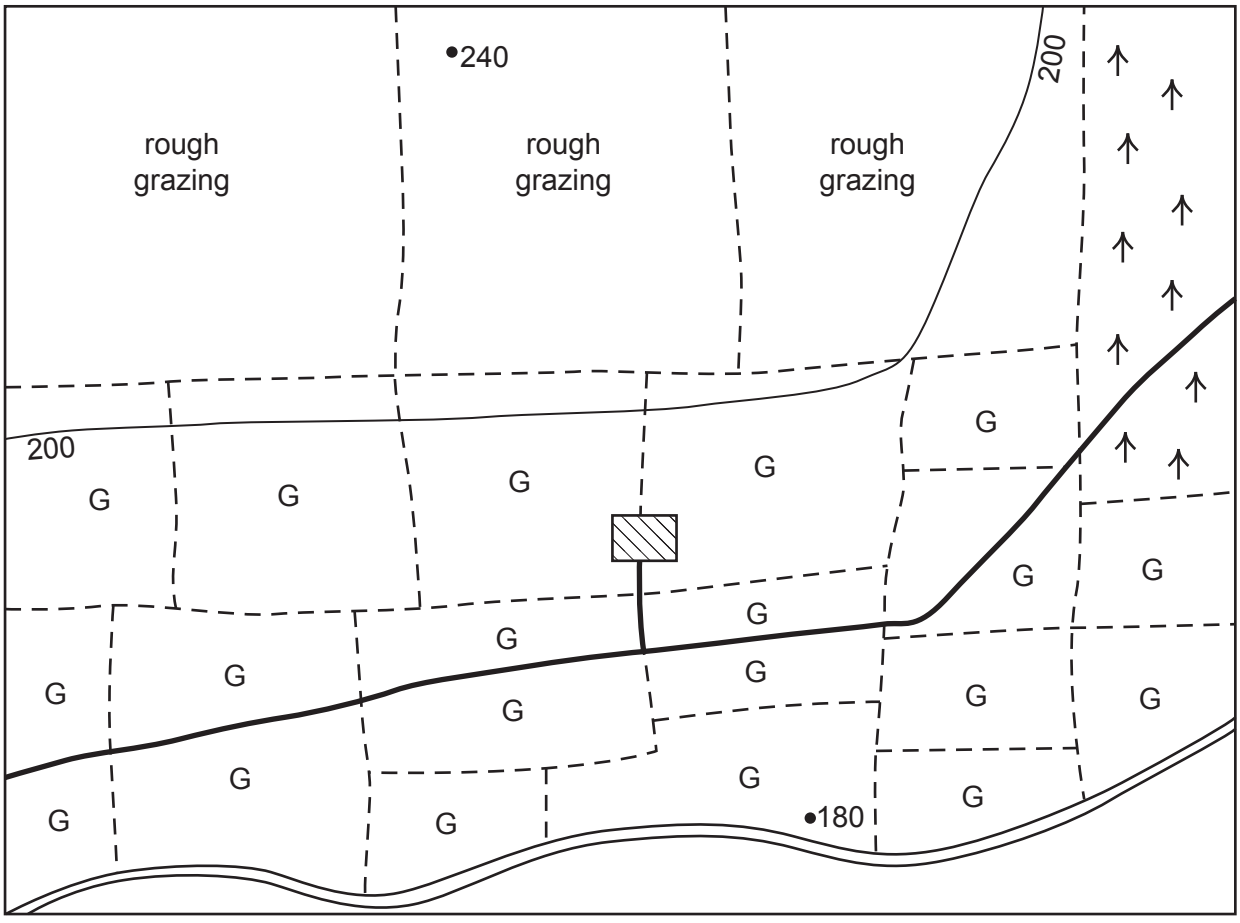
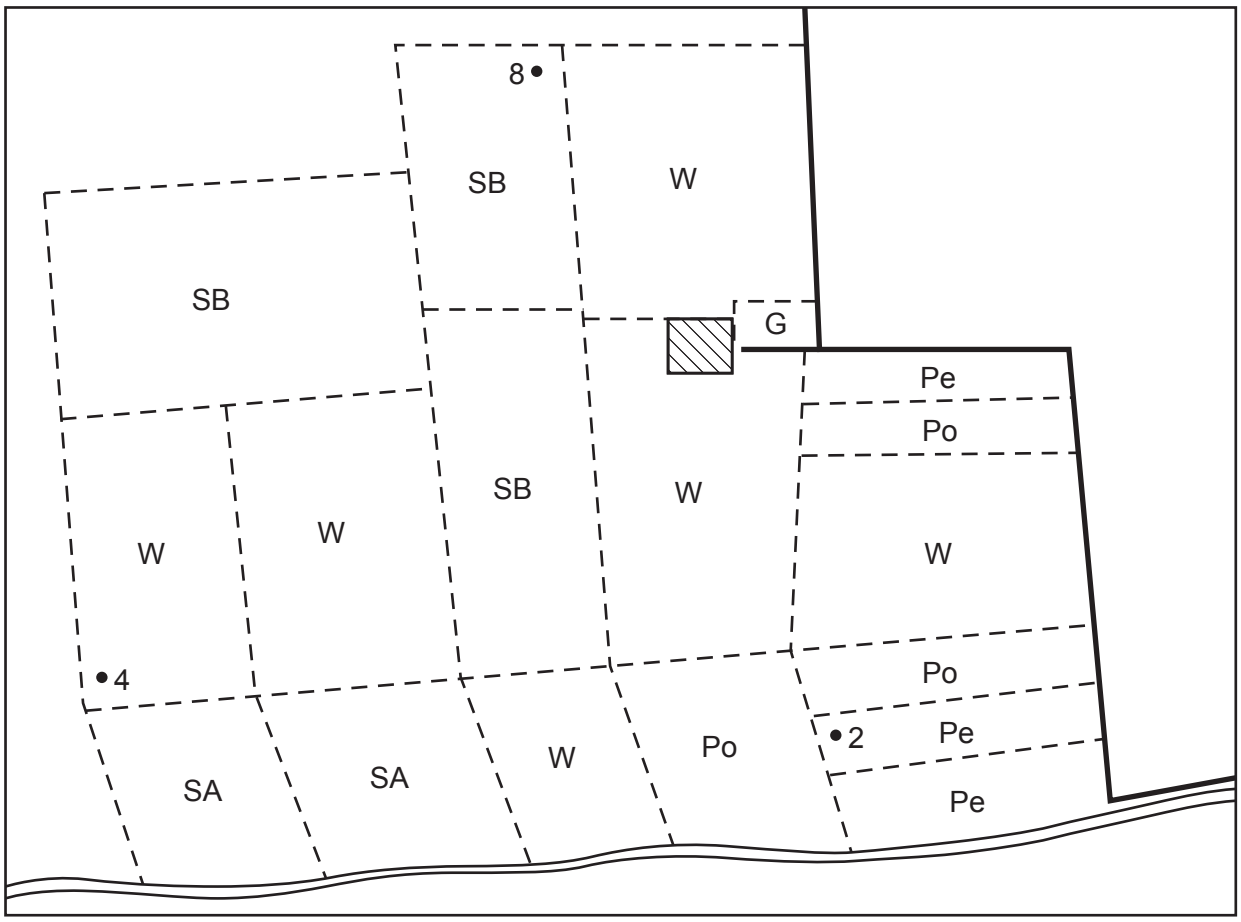


Fig. 2.3 for Question 2

Students' sketch map of Home Park farm



not to scale

Key

farmhouse and farm buildings	
crops	
SB sugar beet	
W wheat	
Pe peas	
Po potatoes	
• 4	spot height in metres
	road
	drainage channel
G	grassland
SA	set-aside

Table 2.3 for Question 2

Land use on both farms

	Bryn Du farm		Home Park farm	
land use	**hectares (ha)**	**percentage (%)**	**hectares (ha)**	**percentage (%)**
crops	0	0	253	89
grassland	83	**65**	4	1
rough grazing	35	**28**	0	0
set-aside	0	0	28	10
woodland	9	7	0	0
total	127	100	285	100

Crops grown on Home Park farm include wheat, potatoes, sugar beet and peas.

Grassland on Bryn Du farm is used for grazing and silage (to feed the cattle and sheep).

Set-aside is land on which no crops are grown to reduce over-production.

Table 2.4 for Question 2

Cost of inputs in both farms

input	**Bryn Du farm**	**Home Park farm**
	cost (£)	**cost (£)**
fertiliser	1700	18 500
pesticides	1000	22 000
food for animals	12 500	0
fuel	6600	4600
labour (workers)	**20 000**	26 000
machinery	**68 000**	142 000
total	109 800	213 100

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Table 2.5 for Question 2

Outputs from the two farms

output	Bryn Du farm
number of lambs	1100
number of young cows	40
number of bales of hay	300
number of bales of silage	700
wool	3400 kg

output	Home Park farm
wheat	1100 tonnes
sugar beet	2300 tonnes
potatoes	1050 tonnes
peas	200 tonnes

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