



**Cambridge Assessment International Education**  
Cambridge International General Certificate of Secondary Education

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**GEOGRAPHY**

**0460/41**

Paper 4 Alternative to Coursework

**May/June 2019**

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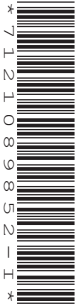
**1 hour 30 minutes**

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**READ THESE INSTRUCTIONS FIRST**

The Insert contains Figs. 1.1 and 1.4 and Tables 1.2 and 1.3 for Question 1, and Tables 2.1, 2.2 and 2.3 and Fig. 2.2 for Question 2.

The Insert is **not** required by the Examiner.



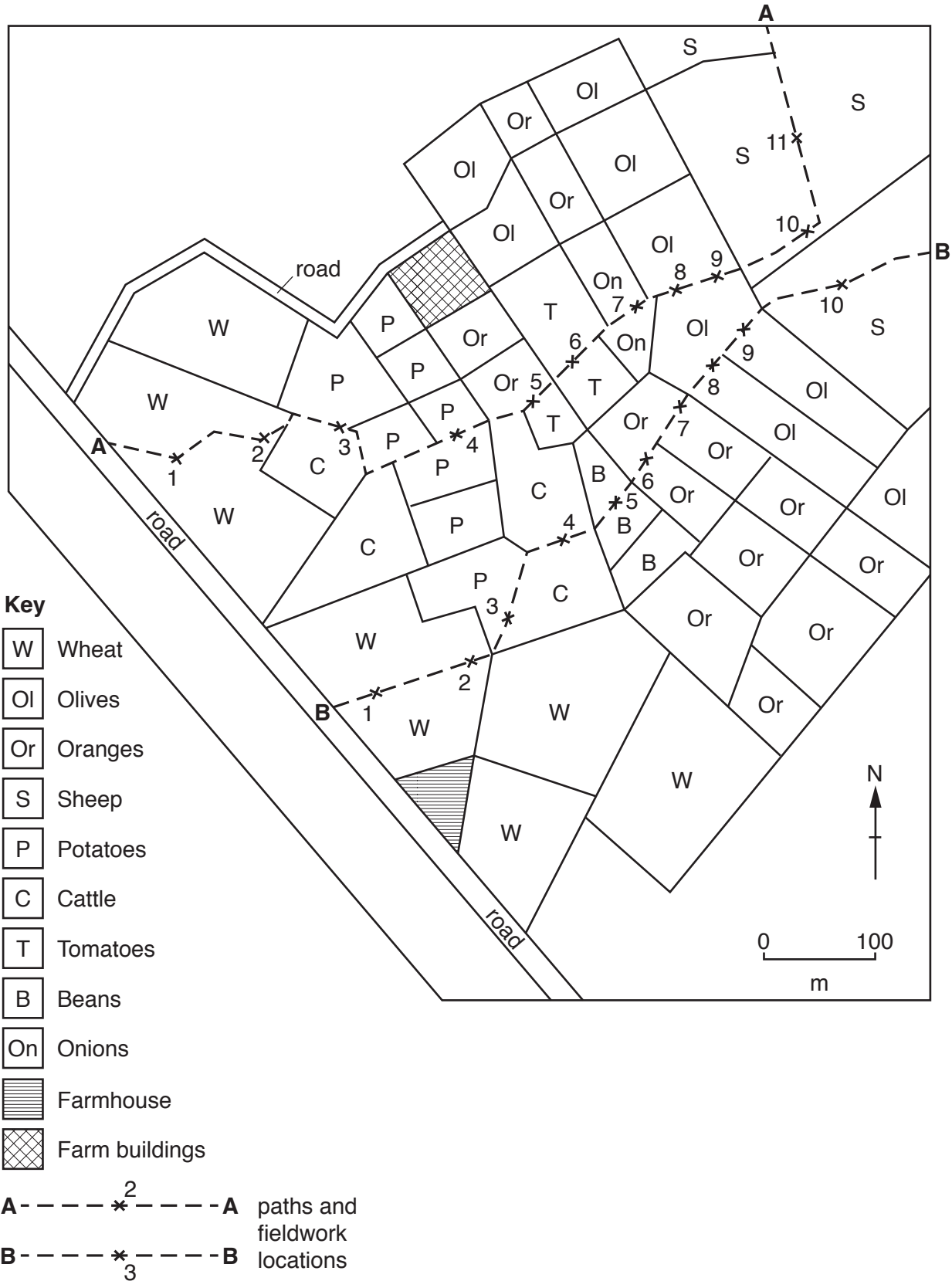
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This syllabus is regulated for use in England, Wales and Northern Ireland as a Cambridge International Level 1/Level 2 Certificate.

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Fig. 1.1 for Question 1

Land use on the farm



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Fig. 1.4 for Question 1

Cell (mobile) phone screen



Table 1.2 for Question 1

## Results of fieldwork

## Path A

Fieldwork location	Land use in the field	Height of land (m)	Angle of slope (degrees)
1	Wheat	57	2
2	Wheat	59	2
3	Cattle	66	3
4	Potatoes	71	2
5	Oranges	75	4
6	Tomatoes	78	5
7	Onions	89	7
8	Olives	104	9
9	Olives	126	16
10	Sheep	153	25
11	Sheep	176	23

## Path B

Fieldwork location	Land use in the field	Height of land (m)	Angle of slope (degrees)
1	Wheat	56	3
2	Wheat	63	4
3	Potatoes	66	6
4	Cattle	70	4
5	Beans	74	7
6	Oranges	75	8
7	Oranges	77	8
8	Olives	96	12
9	Olives	119	13
10	Sheep	142	19

Table 1.3 for Question 1

## Field size and labour requirements

Land use in the field	Average field size (hectares)	Labour needed (hours per hectare per year)
Sheep	8.3	4
Wheat	<b>7.0</b>	<b>7</b>
Cattle	6.2	6
Olives	<b>3.9</b>	<b>9</b>
Beans	3.3	13
Onions	3.1	17
Tomatoes	2.9	19
Oranges	2.5	13
Potatoes	2.2	16

Table 2.1 for Question 2

## Results at site 5

Distance across channel (m)	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
Depth of river (m)	0.15	<b>0.25</b>	<b>0.27</b>	<b>0.21</b>	0.16	0.18	0.16	0.13	0.11	0.07	0.05	0.02

Table 2.2 for Question 2

## Wetted perimeter

Site	Distance downstream from source (km)	Group A wetted perimeter calculation (m)	Group B wetted perimeter measurement (m)
1	0.5	1.75	1.8
2	2.1	3.25	3.6
3	7.4	4.0	3.5
4	11.3	6.3	6.9
5	15	6.9	6.6

Table 2.3 for Question 2

## Average velocity

Site	Average velocity (m/sec)
1	0.29
2	0.58
3	0.46
4	0.39
5	<b>0.67</b>

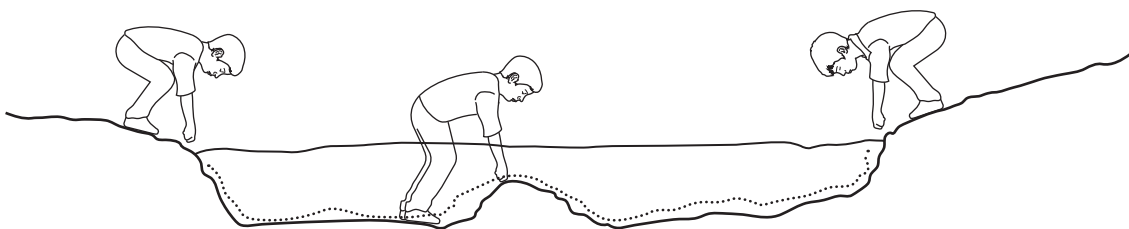
Fig. 2.2 for Question 2

**Measuring the wetted perimeter**

Wetted perimeter can be measured using a rope or tape measure, which should be stretched across the river bed from one bank to the other.



**Measuring the wetted perimeter**



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