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**GEOGRAPHY**

**2217/22**

Paper 2

**October/November 2018**

INSERT

**2 hours 15 minutes**

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**READ THESE INSTRUCTIONS FIRST**

This Insert contains Fig. 3.1 for Question 3, Figs. 7.1, 7.2 and 7.3 and Tables 7.1 and 7.2 for Question 7, and Figs. 8.2, 8.3 and Tables 8.1 and 8.2 for Question 8.

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



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This document consists of **9** printed pages and **3** blank pages.

Fig. 3.1 for Question 3

Part of an urban area in Africa



Fig. 7.1 for Question 7

## Crops grown in Kenya for export

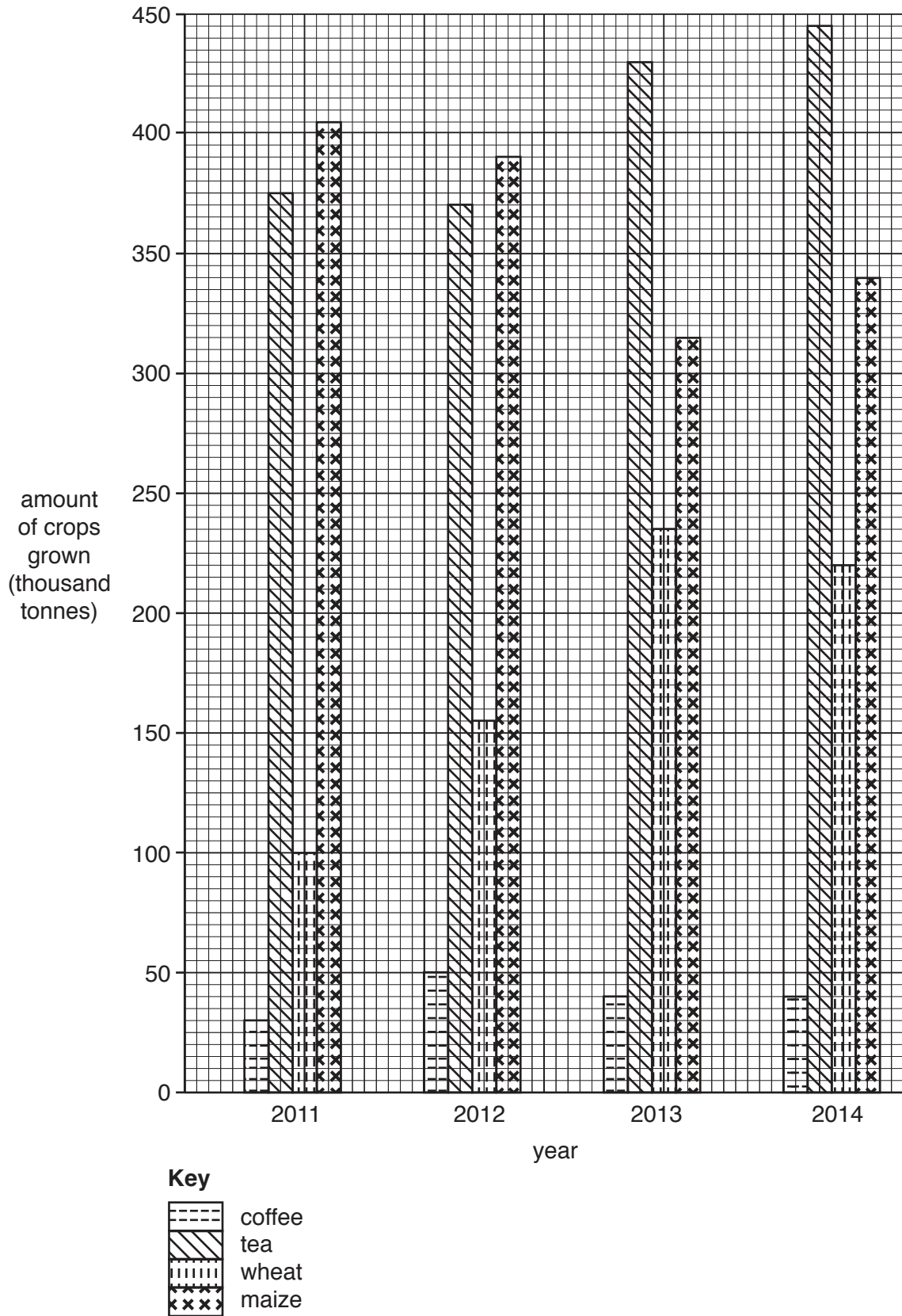
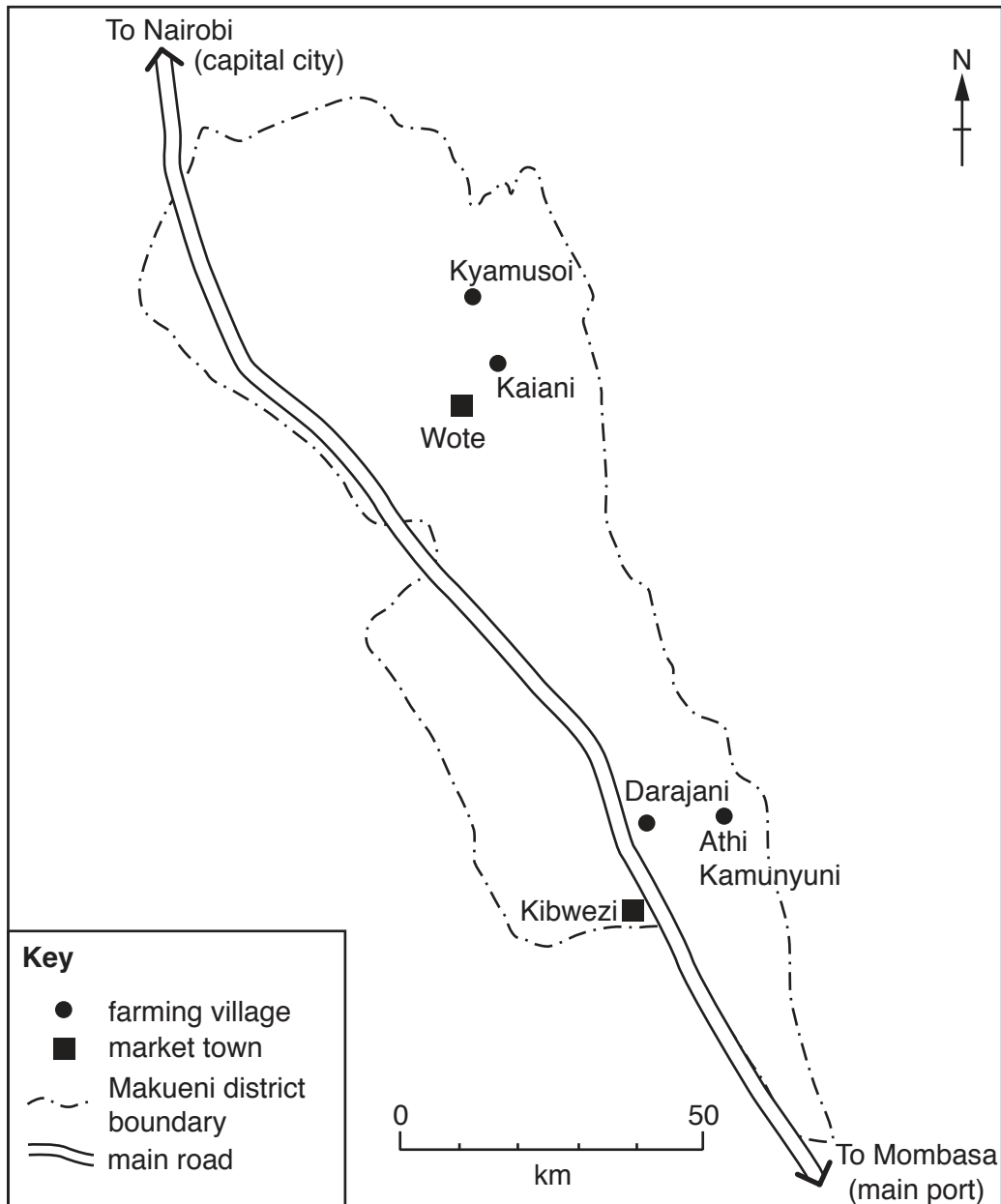


Fig. 7.2 for Question 7

### Map and description of the fieldwork areas

The fieldwork was done in two areas of the Makueni district in the Eastern province of Kenya. The two villages in the north are located on higher land, which receives higher rainfall. The two villages in the south are in a lowland area with a dry climate. The main road between Nairobi and Mombasa goes through the Makueni district. Wote and Kibwezi are the main markets for farming produce.

### Areas investigated



## Fig. 7.3 for Question 7

## Questionnaire for farmers

I am a student studying farming for my *Geography* examination. Please will you answer the following questions to help my study?

1. What is the size of your farm?

..... hectares (ha)

2. How much of your land is used to grow crops?

..... ha

3. How much of your land is used to keep animals?

..... ha

4. Do you keep more cattle or more goats?

.....

5. Which of the following farming difficulties do you suffer from? You may choose more than one.

- low or unreliable rainfall
- occasional very heavy rainfall which can cause flooding
- pests and diseases
- little access to seeds and fertilisers due to poor transport links
- little opportunity to sell produce and low market prices
- lack of credit facilities or cheap loans

Thank you for your help.

**Table 7.1 for Question 7****Results of questionnaire**

|                                              | Farming villages        |          |                         |                |
|----------------------------------------------|-------------------------|----------|-------------------------|----------------|
|                                              | in the north of Makueni |          | in the south of Makueni |                |
|                                              | Kyamusoi                | Kaiani   | Darajani                | Athi Kamunyuni |
| average farm size (ha)                       | 15                      | <b>9</b> | 4                       | 10             |
| average amount of land used for crops (ha)   | 7                       | <b>4</b> | 1                       | 2              |
| average amount of land used for animals (ha) | 8                       | <b>5</b> | 3                       | 8              |
| keep more cattle or more goats               | cattle                  | cattle   | goats                   | goats          |

**Table 7.2 for Question 7****Answers to Question 5 in questionnaire**

| Farming difficulty                                                 | Number of answers | Percentage |
|--------------------------------------------------------------------|-------------------|------------|
| low or unreliable rainfall                                         | 20                | 15         |
| occasional very heavy rainfall which can cause flooding            | 14                | 10         |
| pests and diseases                                                 | 27                | 20         |
| little access to seeds and fertilisers due to poor transport links | 30                | 22         |
| little opportunity to sell produce and low market prices           | 18                | <b>13</b>  |
| lack of credit facilities or cheap loans                           | 28                | <b>20</b>  |
| total                                                              | 137               | 100        |

Fig. 8.2 for Question 8

Diagram of flowmeter

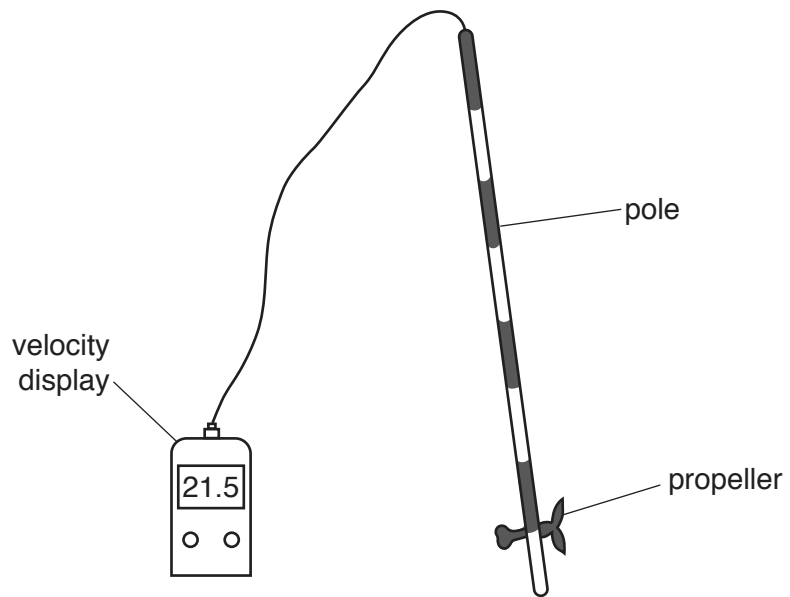


Fig. 8.3 for Question 8

A student using a flowmeter in the river





Table 8.1 for Question 8

## Results of fieldwork

| Meander                |                  |                                | Straight section       |                  |                                |
|------------------------|------------------|--------------------------------|------------------------|------------------|--------------------------------|
| Distance from bank (m) | Velocity (m/sec) | Average length of pebbles (cm) | Distance from bank (m) | Velocity (m/sec) | Average length of pebbles (cm) |
| 0.5                    | 0.28             | 4                              | 0.5                    | 0.30             | 8                              |
| 1.0                    | 0.30             | 8                              | 1.0                    | 0.33             | 12                             |
| 1.5                    | 0.37             | 11                             | 1.5                    | 0.35             | 18                             |
| 2.0                    | <b>0.42</b>      | <b>12</b>                      | 2.0                    | 0.40             | 5                              |
| 2.5                    | 0.44             | 8                              | 2.5                    | <b>0.53</b>      | 10                             |
| 3.0                    | 0.51             | 14                             | 3.0                    | 0.42             | 13                             |
| 3.5                    | 0.59             | 16                             | 3.5                    | 0.41             | 8                              |
| 4.0                    | <b>0.63</b>      | <b>17</b>                      | 4.0                    | 0.37             | 11                             |
| 4.5                    | 0.58             | 15                             |                        |                  |                                |

Table 8.2 for Question 8

## Results of measurements of pebble size

## Straight section shown in Fig. 8.1

| Average size of pebbles (cm) | Number of pebbles |
|------------------------------|-------------------|
| 1 to 5                       | 4                 |
| 6 to 10                      | 14                |
| 11 to 15                     | 17                |
| 16 to 20                     | 5                 |

## Straight section further downstream

| Average size of pebbles (cm) | Number of pebbles |
|------------------------------|-------------------|
| 1 to 5                       | 9                 |
| 6 to 10                      | <b>21</b>         |
| 11 to 15                     | <b>8</b>          |
| 16 to 20                     | 2                 |





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