GEOGRAPHY
Paper 2

Candidates answer on the Question Paper.

Additional Materials: Ruler
Protractor
Plain paper
Calculator

1:50 000 Survey Map Extract is enclosed with this Question Paper.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.
DO NOT WRITE IN ANY BARCODES.

Answer all questions.

The Insert contains Photographs A and B for Question 3.
The Survey Map Extract and the Insert are not required by the Examiner.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of 16 printed pages and 1 Insert.
Study the map extract, which is for Matshiya, Zimbabwe. The scale is 1:50 000.

(a) Fig. 1 shows some of the features in the south east of the map extract. Study Fig. 1 and the map extract, and answer the questions on the opposite page.
Using the map extract, identify the following features shown on Fig. 1:

(i) the name of river A;
...................................................................................................................................... [1]

(ii) feature B;
...................................................................................................................................... [1]

(iii) feature C;
...................................................................................................................................... [1]

(iv) the height above sea level at point D;
...................................................................................................................................... [1]

(v) the main land use in area E;
...................................................................................................................................... [1]

(vi) feature F.
...................................................................................................................................... [1]

(b) Look at the Nkazhe river in the south of the map extract. Which four of the following statements about the river are true? Tick four boxes in the table below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Tick (✓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The river flows towards the north</td>
<td></td>
</tr>
<tr>
<td>The river is about 100 metres wide</td>
<td></td>
</tr>
<tr>
<td>The river flows across land lower than 800 metres above sea level</td>
<td></td>
</tr>
<tr>
<td>The river runs through orchard or plantation</td>
<td></td>
</tr>
<tr>
<td>The river has many tributaries</td>
<td></td>
</tr>
<tr>
<td>The river flows towards the east</td>
<td></td>
</tr>
<tr>
<td>There is a dam on the river</td>
<td></td>
</tr>
<tr>
<td>There are rapids on the river</td>
<td></td>
</tr>
<tr>
<td>The river meanders</td>
<td></td>
</tr>
<tr>
<td>There are waterfalls on the river</td>
<td></td>
</tr>
</tbody>
</table>

[4]
(c) (i) What is the main settlement pattern shown on the map? Tick (✓) one correct answer below.

<table>
<thead>
<tr>
<th></th>
<th>Tick (✓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>dispersed</td>
<td></td>
</tr>
<tr>
<td>linear</td>
<td></td>
</tr>
<tr>
<td>nucleated</td>
<td></td>
</tr>
</tbody>
</table>

(ii) Suggest one reason why this settlement pattern has developed.

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(iii) Study the settlements shown on the map. What is the main type of building in the settlements?

.................................................. [1]

(d) Fig. 2 is a cross section from north to south through Banbanika hill and the Nkazhe river from 282900 to 282850.

On Fig. 2, using labelled arrows, mark the positions of:

(i) the Nkazhe river; [1]
(ii) the south facing slope of Banbanika hill; [1]
(iii) a track. [1]
(e) A person travels along the road from Nkazhi School to Matshiya School. The location of the two schools and the road is shown on Fig. 3.

![Fig. 3](image)

(i) What is the main type of land-use on either side of the road?

.............................................................................................................................. [1]

(ii) In which compass direction does the person travel from Nkazhi School to Matshiya School? Tick (✓) one correct answer in the table below.

<table>
<thead>
<tr>
<th>Tick (✓)</th>
<th>north</th>
<th>south</th>
<th>east</th>
<th>west</th>
</tr>
</thead>
</table>

[1]

(iii) Estimate the distance that the person travels. Tick (✓) one correct answer in the table below.

<table>
<thead>
<tr>
<th>Tick (✓)</th>
<th>5 km</th>
<th>7 km</th>
<th>9 km</th>
<th>11 km</th>
</tr>
</thead>
</table>

[1]
(iv) What is the average height above sea level of the road? Tick (✓) one correct answer in the table below.

<table>
<thead>
<tr>
<th>Height (metres)</th>
<th>Tick (✓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>900</td>
<td></td>
</tr>
<tr>
<td>940</td>
<td></td>
</tr>
<tr>
<td>980</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

[1]

[Total: 20 marks]
2 (a) Fig. 4 shows some recent international population migrations affecting Asia.

Using Fig. 4 only, describe the different population migrations affecting Asia.

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............................................................................................................................................ [5]
(b) Fig. 5 gives information about the populations of four countries. It shows statistics about the percentage of each country’s population born in another country.

![Bar chart showing populations of four countries with percentage of people born in another country and total population.]

**Fig. 5**

(i) Which one of the four countries has the greatest percentage of people born in another country and what is the percentage?

Country ...................................... .......................% [1]

(ii) Which one of the four countries has the least number of people born in another country and what is the number?

Country ...................................... ....................... million [1]

(iii) Using information from Fig. 5, how do the statistics for the USA differ from those of the other three countries?

.............................................................................................................................. [1]

.............................................................................................................................. [1]

[Total: 8 marks]
3 Photographs A and B (Insert) show two river valleys.

(a) Identify features X, Y and Z on Photograph A.

Choose your answers from the list below:

- flood plain
- V-shaped valley
- meanders
- plateau
- levees
- interlocking spurs

X .................................................................

Y .................................................................

Z ................................................................. [3]

(b) Describe the river and the relief of the valley in Photograph B.

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................................................................................................................................................... [5]

[Total: 8 marks]
Fig. 6 shows the areas of tropical rainforest climate and tropical desert climate in South America. Fig. 7 shows the climates of Arica in the tropical desert and Iquitos in the tropical rainforest. Study Figs 6 and 7 and answer the questions on the opposite page.
(a) Describe the distribution of the area of tropical rainforest climate shown on Fig. 6.

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................................................................................................................................................... [2]

(b) Describe the difference between the annual temperature range at Arica and the annual temperature range at Iquitos shown on Fig. 7.

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...................................................................................................................................................
................................................................................................................................................... [2]

(c) (i) Give reasons for the amount of rainfall at Arica.

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...................................................................................................................................................
...................................................................................................................................................
................................................................................................................................................... [2]

(ii) Give reasons for the temperatures at Iquitos.

...................................................................................................................................................
...................................................................................................................................................
...................................................................................................................................................
................................................................................................................................................... [2]

[Total: 8 marks]
Table 1

<table>
<thead>
<tr>
<th>Land use</th>
<th>Percentage of total area</th>
</tr>
</thead>
<tbody>
<tr>
<td>pasture</td>
<td>61</td>
</tr>
<tr>
<td>arable</td>
<td>32</td>
</tr>
<tr>
<td>fallow</td>
<td>4</td>
</tr>
<tr>
<td>hay</td>
<td>3</td>
</tr>
</tbody>
</table>

(a) Use information from Table 1 to complete Fig. 8 below. Use the key provided.  

(b) (i) What is the difference between commercial farming and subsistence farming?

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.............................................................................................................................................................. [1]

(ii) Describe one difference between intensive farming and extensive farming.

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.............................................................................................................................................................. [1]
(c) Fig. 9 gives information about wheat farming in Kazakhstan.

**Wheat farming in Kazakhstan**

Kazakhstan is one of the world’s big producers and exporters of wheat. Wheat is mainly grown in north-central Kazakhstan where there are fertile soils and the land is flat. Individual fields frequently measure over 400 hectares. Precipitation is low, about 450 mm per year, and wheat fields in this region are not irrigated. The region is subject to frequent drought.

The use of fertilizer increased by nearly 500% between 1999 and 2007 and continues to increase due in part to the government subsidising prices. A technological factor contributing to the improvement in Kazakhstan’s wheat yield is the increase in the use of improved seeds. The government provides support to agricultural research facilities.

The efficiency of Kazakhstan’s agricultural machinery is improving, mainly because of the replacement of ageing combined harvesters with new equipment. 77% of the total grain output is produced on farms that are larger than 5000 hectares. Family farms are substantially smaller than this. Family farms and the larger farms produce mainly for sale rather than for private consumption.

**Fig. 9**

(i) Using Fig. 9 **only**, give one physical input of wheat farming in Kazakhstan.

.......................................................................................................................................................................................... [1]

(ii) Using Fig. 9 **only**, give one human input of wheat farming in Kazakhstan.

.......................................................................................................................................................................................... [1]

(iii) Is wheat farming in Kazakhstan commercial or subsistence? Give one piece of evidence from Fig. 9 to support your answer.

.......................................................................................................................................................................................... [1]

(iv) Is wheat farming in Kazakhstan intensive or extensive? Give one piece of evidence from Fig. 9 to support your answer.

.......................................................................................................................................................................................... [1]

[Total: 8 marks]
6 Bulgaria, a country in eastern Europe, is encouraging industrial development.

(a) Table 2 shows the current employment structure in Bulgaria.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage of employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>primary</td>
<td>8</td>
</tr>
<tr>
<td>secondary</td>
<td>35</td>
</tr>
<tr>
<td>tertiary</td>
<td>57</td>
</tr>
</tbody>
</table>

Use the information in Table 2 to complete Fig. 10, the divided bar graph below. Use the key provided.

(b) Development is being encouraged at three industrial sites near the city of Plovdiv. These are at Kuklen, Maritsa and Parvomay. The three sites and their sizes are shown on Fig. 11. Study Fig. 11 and answer the questions on pages 15 and 16.
For each of the following factors, choose the site which offers the best facilities. Tick one box for each factor and give a reason for your choice.

(i) Road transport

<table>
<thead>
<tr>
<th>Site</th>
<th>Kuklen</th>
<th>Maritsa</th>
<th>Parvomay</th>
<th>No difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick (✓)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason ....................................................................................................................................
............................................................................................................................................ [1]

(ii) Air transport

<table>
<thead>
<tr>
<th>Site</th>
<th>Kuklen</th>
<th>Maritsa</th>
<th>Parvomay</th>
<th>No difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick (✓)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason ....................................................................................................................................
............................................................................................................................................ [1]

(iii) Rail transport

<table>
<thead>
<tr>
<th>Site</th>
<th>Kuklen</th>
<th>Maritsa</th>
<th>Parvomay</th>
<th>No difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick (✓)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason ....................................................................................................................................
............................................................................................................................................ [1]

(iv) Market and labour supply

<table>
<thead>
<tr>
<th>Site</th>
<th>Kuklen</th>
<th>Maritsa</th>
<th>Parvomay</th>
<th>No difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick (✓)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason ....................................................................................................................................
............................................................................................................................................ [1]
(v) Amount of land available

<table>
<thead>
<tr>
<th>Site</th>
<th>Kuklen</th>
<th>Maritsa</th>
<th>Parvomay</th>
<th>No difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick (✓)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason ................................................................................................................................................ [1]

(vi) Closeness to resorts

<table>
<thead>
<tr>
<th>Site</th>
<th>Kuklen</th>
<th>Maritsa</th>
<th>Parvomay</th>
<th>No difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tick (✓)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason ................................................................................................................................................ [1]

[Total: 8 marks]