Please write clearly in block capitals.

Centre number ___________________________  Candidate number ___________________________
Surname ______________________________________________________
Forename(s) _____________________________________________________
Candidate signature _____________________________________________

GCSE GEOGRAPHY

Paper 3 Geographical Applications

Thursday 13 June 2019 Morning Time allowed: 1 hour 15 minutes

Materials
For this paper you must have:
• the Pre-release resources booklet (enclosed)
• a pencil
• a rubber
• a ruler.
You may use a calculator.

Instructions
• Use black ink or black ball-point pen.
• Fill in the boxes at the top of this page.
• Answer all questions.
• You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
• Do all rough work in this book. Cross through any work you do not want to be marked.

Information
• The marks for questions are shown in brackets.
• The total number of marks available for this paper is 76.
• Spelling, punctuation, grammar and specialist terminology will be assessed in Questions 03.2 and 05.4.

For Examiner’s Use

<table>
<thead>
<tr>
<th>Question</th>
<th>Mark</th>
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</table>
Section A Issue evaluation

Answer all questions in this section.

Study Figure 1 in the resources booklet, ‘Tropical rainforests’.

01.1 Calculate the temperature range for Manaus. [1 mark]

01.2 Explain why there are ‘no real seasonal temperature differences’ in areas of tropical rainforest. [2 marks]

01.3 Suggest one reason why so many medicinal drugs are derived from tropical rainforests. [1 mark]
0 1 4
‘Tropical rainforests are important at both the local and global scales.’
Discuss this statement. [6 marks]

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Turn over for the next question
Study Figure 2 in the resources booklet, ‘Deforestation of tropical rainforests’.

02.1 Compare the pattern of forest loss between the Brazilian Amazon and the non-Brazilian Amazon.

[3 marks]

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02.2 Complete the following diagram to show how the removal of trees can affect the rainforest environment.

Write the correct statement in each box.

Choose from the statements below.

[2 marks]

Increasing flood risk  Less animal life  Soil is eroded

Trees removed

↓

Heavy rainfall hits ground

↓

Less plant growth

Increasing amount of sediment in rivers

↓

Increased cloudiness of water

Less animal life
'Some activities in areas of tropical rainforests are more damaging than others.'

To what extent do you agree with this statement? [6 marks]

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Turn over for the next question
Study **Figure 3** in the resources booklet, ‘Road development in the Peruvian Amazon’.

**03.1** What does the information in the ‘Peru: development fact file’ suggest about levels of development in Peru?

[4 marks]

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‘The Peruvian government has decided to allow the development of new roads in the Amazon.’

Do you think that this was the right decision?

Yes ☐ No ☐

Tick (✓) the box to show your choice.

Use evidence from the resources booklet and your own understanding to explain your choice.

[9 marks]
 [+3 SPaG marks]

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Turn over ▶
End of Section A
Study **Figure 4**, a table showing information collected by students about housing development in four areas on the edge of a town.

**Figure 4**

<table>
<thead>
<tr>
<th>Area</th>
<th>Original area of countryside (hectares)</th>
<th>Area lost to housing developments (hectares)</th>
<th>Remaining countryside (hectares)</th>
<th>% loss of countryside</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>240</td>
<td>24</td>
<td>216</td>
<td>10</td>
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<tr>
<td>B</td>
<td>320</td>
<td>160</td>
<td>160</td>
<td>0</td>
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<tr>
<td>C</td>
<td>260</td>
<td>39</td>
<td>221</td>
<td>15</td>
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<tr>
<td>D</td>
<td>420</td>
<td>84</td>
<td>204</td>
<td>20</td>
</tr>
</tbody>
</table>

Complete the table (**Figure 4**) by filling in the data for Area B and Area D. 

**Question 4 continues on the next page**
Study **Figure 5**, showing information from a survey of 100 people in a coastal area.

**Figure 5**

<table>
<thead>
<tr>
<th>What is your main reason for visiting this coastal area?</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visiting friends/relatives</td>
<td>6</td>
</tr>
<tr>
<td>Swimming/sporting activities</td>
<td>46</td>
</tr>
<tr>
<td>Quality/safety of the beach</td>
<td>34</td>
</tr>
<tr>
<td>Nearest beach to where we live</td>
<td>8</td>
</tr>
<tr>
<td>Other reasons</td>
<td>6</td>
</tr>
</tbody>
</table>

Complete the pie chart below to show the information for **Figure 5**.

[1 mark]
Study **Figure 6**, part of a student’s planning sheet in a fieldwork enquiry.

**Figure 6**

- A – G Data collection points

**Direction of flow**

---

**04.3** Name the type of sampling method used in **Figure 6**.

Shade **one** circle only.

A  Opportunity sampling, selecting points which are easiest to access

B  Random sampling, based on chance

C  Stratified sampling, where more points are chosen from one area

D  Systematic sampling where points are chosen at regular intervals

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**04.4** Suggest why the type of sampling shown in **Figure 6** is not always possible in a fieldwork enquiry.

[2 marks]

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**Question 4 continues on the next page**
Study Figures 7a and 7b, part of a contour map and a cross section used in a river enquiry.

**Figure 7a**

**Figure 7b**

Complete the cross-section from X–Y on **Figure 7b**. [1 mark]

Describe the slope of the land from point X to the river. [1 mark]
Study **Figure 8**, information about a questionnaire survey.

**Figure 8**

A group of students used a questionnaire to assess whether local facilities for the older population were good enough.

In this area 48% of the population are over 50 years old. Females account for 56% of this age group.

The students completed the questionnaire in the town centre on a Saturday morning.

The following diagram shows the age groups of people who were asked to complete the questionnaire.

![Age Groups Diagram]

**04.7** Suggest **two** ways that students might adapt their method in order to obtain more appropriate data.

[2 marks]

1

2

**04.8** Suggest **two** additional data collection techniques that the students could use to find out if local facilities are good enough for the older population.

[2 marks]

1

2

**Question 4 continues on the next page**
Study **Figure 9**, a housing quality survey from twelve different areas of a town.

**Figure 9**

<table>
<thead>
<tr>
<th>Area</th>
<th>Housing quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
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<td>2</td>
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<td>11</td>
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<tr>
<td>12</td>
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</tbody>
</table>

Assess the usefulness of measures of central tendency, such as median, mean and mode, in analysing the housing quality data collected by the students.

[4 marks]
Write the title of your physical geography fieldwork enquiry.

**Title of physical fieldwork enquiry** ____________________________________________________________
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05.1 Suggest why one set of data you collected in your physical fieldwork enquiry may not have been accurate.

[2 marks]
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05.2 Identify one potential risk in your physical geography fieldwork and explain how the risk was reduced.

[3 marks]
Risk ______________________________________________________________________________
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How the risk was reduced ______________________________________________________________________
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**Question 5 continues on the next page**
Write the title of your human geography fieldwork enquiry.

Title of human fieldwork enquiry _____________________________________________

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05.3 Assess the suitability of the location chosen for your human geography enquiry. [6 marks]

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To what extent did the data collected for one of your enquiries allow you to reach valid conclusions?

Title of fieldwork enquiry

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[9 marks]
[+3 SPaG marks]
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