GCSE GEOGRAPHY
Paper 3 Geographical applications

Monday 11 June 2018 Afternoon Time allowed: 1 hour 15 minutes

Materials
For this paper you must have:
• the Pre-release resources booklet (enclosed)
• the OS key insert (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.
Section A  Issue evaluation

Answer all questions in this section.

Study Figure 1, 'Water in the United Kingdom' in the resources booklet.

01. Which of the following cities has the highest annual rainfall?

Shade one circle only.

A  Bristol
B  Glasgow
C  Liverpool
D  London

[1 mark]

01.2 Give two effects of water stress.

[2 marks]

1

2
‘Water transfer schemes will be essential to meet the growing demand for water in the UK.’

Do you agree? Explain your answer. [6 marks]

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Question 1 continues on the next page
Suggest why water companies need 25-year plans. [6 marks]

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Study Figure 2, 'Managing water demand in Oxfordshire' in the resources booklet.

What is the approximate area of the proposed reservoir as shown on the Ordnance Survey (OS) map extract?

Shade one circle only.

A 3 km²  
B 6 km²  
C 9 km²  
D 12 km²

[1 mark]

Describe the relief of the land in the area of the proposed reservoir.

[2 marks]

Give one reason why clay is a suitable material on which to build a reservoir.

[1 mark]
Study Figure 2, ‘Managing water demand in Oxfordshire’ and Figure 3, ‘A new reservoir for Oxfordshire?’ in the resources booklet.

‘The physical environment provides opportunities for a range of socio-economic activities.’ Use Figure 2 and Figure 3 to discuss this statement. [6 marks]
Do you think that the proposed reservoir development should go ahead?

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]

Extra space
Study **Figure 4**, information collected by students about visitors to Bournemouth, a coastal town in Dorset.

**Figure 4**

**Survey of 100 people staying in a hotel**
(carried out by questionnaire on a Saturday in August)

<table>
<thead>
<tr>
<th>Origins of visitors (Where people came from)</th>
<th>Visitor spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>Accommodation</td>
</tr>
<tr>
<td>North East</td>
<td>Shopping</td>
</tr>
<tr>
<td>Yorkshire and the Humber</td>
<td>Food and drink</td>
</tr>
<tr>
<td>East Midlands</td>
<td>Attractions and entertainment</td>
</tr>
<tr>
<td>East Anglia</td>
<td>Travel</td>
</tr>
<tr>
<td>South East</td>
<td>Other</td>
</tr>
<tr>
<td>South West</td>
<td></td>
</tr>
<tr>
<td>Wales</td>
<td></td>
</tr>
<tr>
<td>West Midlands</td>
<td></td>
</tr>
<tr>
<td>North West</td>
<td></td>
</tr>
<tr>
<td>Northern Ireland</td>
<td></td>
</tr>
</tbody>
</table>

|                         |                  |
| Scotland                | 4                |
| North East              | 8                |
| Yorkshire and the Humber| 6                |
| East Midlands           | 14               |
| East Anglia             | 6                |
| South East              | 20               |
| South West              | 12               |
| Wales                   | 4                |
| West Midlands           | 16               |
| North West              | 8                |
| Northern Ireland        | 2                |
| Accommodation           | 19%              |
| Shopping                | 22%              |
| Food and drink          | 30%              |
| Attractions and entertainment | 11% |
| Travel                  | 15%              |
| Other                   | 3%               |
04.1 Complete the map below (Figure 5) to show the origin of visitors to Bournemouth using the following data.

| Yorkshire and the Humber | 6% |

[1 mark]

Figure 5

04.2 Describe the pattern shown by Figure 5.

[2 marks]

Question 4 continues on the next page
(a) Suggest one additional question which could be included on the visitor survey.

[1 mark]

(b) Give one reason why your chosen question might provide useful information for the visitor survey.

[1 mark]

Study Figure 6, information about visitor numbers to the main tourist attractions in a city.

**Figure 6**

<table>
<thead>
<tr>
<th>Visitor numbers to main tourist attractions (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
</tr>
<tr>
<td>February</td>
</tr>
<tr>
<td>March</td>
</tr>
<tr>
<td>April</td>
</tr>
<tr>
<td>May</td>
</tr>
<tr>
<td>June</td>
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<tr>
<td>July</td>
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<tr>
<td>August</td>
</tr>
<tr>
<td>September</td>
</tr>
<tr>
<td>October</td>
</tr>
<tr>
<td>November</td>
</tr>
<tr>
<td>December</td>
</tr>
</tbody>
</table>
A student used the following presentation method (Figure 7) to show the information in Figure 6.

Figure 7

Visitor numbers

Month

(a) Suggest a more appropriate method for presenting the data shown in Figure 6.

[1 mark]

(b) Give a reason for your choice.

[1 mark]

Question 4 continues on the next page
As part of a geographical enquiry, students carried out an environmental quality survey in one part of a town centre. The results are shown in Figure 8.

Figure 8

<table>
<thead>
<tr>
<th></th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>+1</th>
<th>+2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lots of traffic pollution</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>No traffic pollution</td>
</tr>
<tr>
<td>Lots of litter</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>No litter</td>
</tr>
<tr>
<td>Unattractive buildings</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>Attractive buildings</td>
</tr>
<tr>
<td>Lots of vandalism</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>No vandalism</td>
</tr>
<tr>
<td>No landscaping</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
<td>Good landscaping</td>
</tr>
</tbody>
</table>

What is the total environmental quality score for the area shown in Figure 8?

0 4.5

Suggest one advantage and one disadvantage of using the technique shown in Figure 8 to measure environmental quality.

0 4.6

Advantage

Disadvantage
There are no questions printed on this page

Question 4 continues on the next page
Students studied two different rivers over a distance of 1000 metres. For each river they measured the depth at a number of sites. The results are shown on Figure 9.

**Figure 9**

**River A**

![Graph showing the depth of River A along the distance from source](attachment:river_a_graph.png)

**River B**

![Graph showing the depth of River B along the distance from source](attachment:river_b_graph.png)
0 4. 7 Complete the scattergraph for **River B** by plotting the following data.

Distance from source – 450 m

Depth of river – 22 cm

[1 mark]

0 4. 8 Draw a line of best fit on the scattergraph for **River B**.

[1 mark]

0 4. 9 Compare the relationship between distance from source and depth of river for the two rivers.

[4 marks]

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Turn over for the next question
Write the title of your physical geography fieldwork enquiry.

Title of fieldwork enquiry

05.1 Explain why the chosen location was suitable for the collection of data. [2 marks]

05.2 Justify one primary data collection method used in your physical geography enquiry. [3 marks]
Write the title of your human geography fieldwork enquiry.

Title of fieldwork enquiry ________________________________

0 5 3 Explain how one data presentation technique used in your human geography enquiry helped you to interpret the data.

[6 marks]

Extra space __________________

Question 5 continues on the next page
For one of your fieldwork enquiries, assess the extent to which the accuracy of the results and the reliability of the conclusions could be improved.

Title of fieldwork enquiry ______________________________________

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ANSWER IN THE SPACES PROVIDED