Instructions

- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name, centre number and candidate number.
- Answer all questions.
- Answer the questions in the spaces provided – there may be more space than you need.

Information

- The total mark for this paper is 54.
- The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.
- Questions labelled with an asterisk (*) are ones where the quality of your written communication will be assessed – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.
- The marks available for spelling, punctuation and grammar are clearly indicated.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.
1 (a) Study the Ordnance Survey (OS) map extract and Figure 1 (photograph) in the Resource Booklet.

(i) Identify the number of the road shown in the photograph.

- A A832
- B B8056
- C B8021
- D B8057

(ii) Which compass direction is the River Ewe flowing where it enters the sea in grid square 8580?

- A south east
- B north west
- C south west
- D north east

(iii) What is the distance along the road between the place of worship at Poolewe (857807) and the centre of the small settlement at Naast (827833)?

- A 4.0 km
- B 4.5 km
- C 5.0 km
- D 5.5 km
(b) Study the area between North Erradale (7481) in the west and Poolewe (8580) in the east of the OS map extract.

Complete the sentences below using some of the words and numbers from the box.

<table>
<thead>
<tr>
<th>flat</th>
<th>few</th>
<th>189</th>
<th>many</th>
<th>woodland</th>
</tr>
</thead>
<tbody>
<tr>
<td>water</td>
<td>244</td>
<td>high</td>
<td>cliff</td>
<td>steep</td>
</tr>
</tbody>
</table>

Poolewe is on ...................................... ground by the coast.

Roughly halfway between the two settlements is Meall Mor at a height of ............................................. metres.

In grid square 8180, almost 50% of the area is covered by ............................................. .

This area is very remote with ............................................. buildings and roads.

(c) Gairloch (8076 and 8077) is a small town that has facilities for tourists.

Using the OS map extract, complete the table below with one tourist facility and grid reference.

An example has been completed for you.

<table>
<thead>
<tr>
<th>Tourist facility</th>
<th>Six-figure grid reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viewpoint</td>
<td>804 775</td>
</tr>
</tbody>
</table>

(Total for Question 1 = 8 marks)
2 (a) Study Figure 2a.

**Figure 2a**

**Average monthly rainfall in Gairloch, Wester Ross, North West Highlands of Scotland**

Complete the rainfall graph (Figure 2a) using the information in Figure 2b.

<table>
<thead>
<tr>
<th>Month</th>
<th>Rainfall (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>144</td>
</tr>
<tr>
<td>May</td>
<td>70</td>
</tr>
</tbody>
</table>

**Figure 2b**

**Additional data for average monthly rainfall in Gairloch, Wester Ross, North West Highlands of Scotland**
(b) Study Figure 2c in the Resource Booklet.

(i) State the maximum rainfall (mm) received in the area of Wester Ross.

☐ A 801–1000
☐ B 1001–1500
☐ C 1501–2500
☐ D more than 3500

(ii) Describe the pattern of rainfall shown on Figure 2c.

(c) Study Figure 2d in the Resource Booklet.

(i) What is meant by the term GIS?

☐ A Geological Integration System
☐ B Geographical Infotainment System
☐ C Geographical Integration System
☐ D Geographical Information System

(ii) Suggest one group of people who might use the information in Figure 2d.
(iii) Outline one advantage of the technique used to present the information in Figure 2d.

(Total for Question 2 = 10 marks)
3 Study Figure 3 in the Resource Booklet.

(a) Describe two disadvantages of using photographs to show geographical information.

1 ..............................................................................................................................................
2 ..............................................................................................................................................

(b) Explain one advantage of using information from the television or the internet (such as YouTube and Twitter) as a way of conducting geographical research.

1 ..............................................................................................................................................
2 ..............................................................................................................................................

(Total for Question 3 = 7 marks)
SECTION B – CHALLENGES FOR THE PLANET

Answer ALL questions in this section.

Spelling, punctuation and grammar will be assessed in 5*(b).

4  (a) Study Figure 4a in the Resource Booklet.

(i) In terms of **lives saved**, which area will have the largest benefit? (1)

- [ ] A Brazil and Mexico
- [ ] B China
- [ ] C EU
- [ ] D India

(ii) The greatest financial benefit will come from (1)

- [ ] A lives saved
- [ ] B energy saved
- [ ] C emissions reduced
- [ ] D less driving

(iii) Describe **two** different sustainable transport schemes. (4)

1

..........................................................................................................................
..........................................................................................................................
..........................................................................................................................

2

..........................................................................................................................
..........................................................................................................................
..........................................................................................................................
(b) Study Figure 4b in the Resource Booklet.

(i) Which one of the following is a natural cause of the changes shown on Figure 4b?

☐ A variations in land use
☐ B variations in sea level
☐ C variations in global population
☐ D variations in solar output

(ii) Explain one way that the burning of fossil fuels contributes to climate change.
(c) Complete the sentences below about sustainable development using some of the words from the box.

One definition of sustainable development is ‘to meet the needs of ............................................................ generations without affecting the opportunities for future generations’.

This definition comes from the 1987 ............................................................ Report, called ‘Our Common Future’.

The Report recognised that there is only a limited supply of ............................................................ .

All definitions of sustainable development consider social, environmental, and ............................................................ factors.

Some people argue against sustainability, saying that it will ............................................................ development for some of the world’s poorest people.

(Total for Question 4 = 14 marks)
5  (a) Study Figure 5 in the Resource Booklet.

   (i) Describe the pattern shown in the data on Figure 5.  

   (ii) One reason why there is a lack of acceptance of climate change is

   - [ ] A  there is no evidence of temperature change in the last 100 years
   - [ ] B  the science is very complex and difficult to understand
   - [ ] C  burning fossil fuels is clean and efficient
   - [ ] D  glaciers have not retreated in the last 200 years

   (iii) State one example of a global policy agreement which has been developed in response to climate change.
*(b) Explain the negative effects that climate change is having on both people and the environment.

Use examples in your answer.

(Total for spelling, punctuation and grammar = 4 marks)
(Total for Question 5 = 15 marks)

TOTAL FOR SECTION B = 29 MARKS
TOTAL FOR PAPER = 54 MARKS
Information

- This Resource Booklet contains photographs, diagrams and maps needed for use with the Unit 1 Geographical Skills and Challenges examination. This Resource Booklet is for use with both Foundation and Higher tiers.
Figure 1
A photograph taken from the viewpoint in grid square 8077
The camera was pointing west
Figure 2c

UK rainfall map, 2014
Figure 2d
A GIS map showing deprivation data for part of the West Midlands, 2010

(Source: © DataShine)
Figure 3

Photographs showing geographical information
### SECTION B – CHALLENGES FOR THE PLANET

<table>
<thead>
<tr>
<th>Lives saved</th>
<th>Brazil and Mexico</th>
<th>China</th>
<th>European Union (EU)</th>
<th>India</th>
<th>USA</th>
<th>Financial benefits (USD billions)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$87</td>
<td>20,000 lives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Energy saved</th>
<th>Brazil and Mexico</th>
<th>China</th>
<th>European Union (EU)</th>
<th>India</th>
<th>USA</th>
<th>Financial benefits (USD billions)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$237</td>
<td>47,000 TWh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emissions reduced</th>
<th>Brazil and Mexico</th>
<th>China</th>
<th>European Union (EU)</th>
<th>India</th>
<th>USA</th>
<th>Financial benefits (USD billions)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$132</td>
<td>2.4 GT CO₂</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key:**

- TWh = Terawatt-hours
- GT CO₂ = Gigatonnes of carbon dioxide

(Source: adapted from © 2016 The World Bank Group)

**Figure 4a**

*The predicted benefits of sustainable transport policies for selected areas, 2030*
Figure 4b

Estimated average global temperatures since the end of the last ice age
Figure 5

Estimated percentage of adults who think recent climate change is mostly caused by human activities for selected states in the USA (2014)

(Source: http://environment.yale.edu/poe/v2014/)