Total marks — 60

SECTION 1 — PHYSICAL ENVIRONMENTS — 15 marks
Attempt ALL questions.

SECTION 2 — HUMAN ENVIRONMENTS — 15 marks
Attempt ALL questions.

SECTION 3 — GLOBAL ISSUES — 20 marks
Attempt TWO questions.

SECTION 4 — APPLICATION OF GEOGRAPHICAL SKILLS — 10 marks
Attempt the question.

Credit will be given for appropriately labelled sketch maps and diagrams.

Write your answers clearly in the answer booklet provided. In the answer booklet you must clearly identify the question number you are attempting.

Use blue or black ink.

Before leaving the examination room you must give your answer booklet to the Invigilator; if you do not you may lose all the marks for this paper.
Question 1

Study Maps Q1A and Q1B before answering this question.

(a) Compare the rainfall patterns across West Africa; and

(b) suggest reasons for the variations.

Map Q1A: Location of selected air masses and the ITCZ in January and July

Key:
- mT = Maritime Tropical
- cT = Continental Tropical
- ITCZ = Inter Tropical Convergence Zone
Map Q1B: Rainfall patterns in West Africa

Key: Isohyets showing mean annual rainfall (mm)

Agadez

Bobo-Dioulasso

Lagos

Precipitation (mm)

J F M A M J J A S O N D

[Turn over
Question 2

Read Diagram Q2.

Diagram Q2: Extract from Lake District Management Plan

The Lake District's varied scenery and historic environment provide for a wide range of sport, recreational and leisure activities . . . this has grown and changed over time.

As the National Park continues to change, we need to monitor how access and recreation is being managed to ensure that a balance exists between the needs of everyone.

State of the Park Report 2005: Access and Recreation

Referring to a glaciated upland area you have studied:

(a) explain the environmental conflicts caused by the various land uses; 5

(b) (i) explain the strategies used to manage these conflicts; and

(ii) comment on the effectiveness of these strategies. 5
Question 3

Look at Map Q3 before answering this question.

The Great Green Wall Initiative aims to reduce the impact of land degradation in the Sahel zone of Northern Africa.

(a) Explain techniques employed to manage rural land degradation in a rainforest or semi arid area that you have studied; and

(b) comment on the effectiveness of these techniques.

Map Q3: The Great Green Wall Initiative

“Great Green Wall” of trees
Total distance: 7,775 km
Total area: 11,662,500 hectares
Question 4

In November 2013, the Chairperson of Nigeria's National Population Commission resigned after questioning the accuracy of the data gathered about the country's population.

(a) **Discuss** how countries gather accurate population data.  
(b) **Explain** why it is difficult to gather accurate population data in developing world countries.
SECTION 3 — GLOBAL ISSUES — 20 marks

Attempt TWO questions

Question 5  River Basin Management  Page 8
Question 6  Development and Health  Page 10
Question 7  Global Climate Change  Page 11
Question 8  Trade, Aid and Geopolitics  Page 12
Question 9  Energy  Page 13

[Turn over
Question 5: River Basin Management

Map Q5A: Bangladesh

Map Q5B: Karnafuli River Basin

BEFORE

AFTER

Population
- 200,000–500,000
- 2–6 million
- +6 million
Question 5: (continued)

Diagram Q5A: Climate Graph, Chittagong, Bangladesh

Diagram Q5B: Population growth in Bangladesh

Diagram Q5C: Selected statistics, Bangladesh

<table>
<thead>
<tr>
<th>Access to Improved drinking water</th>
<th>84%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Improved sanitation</td>
<td>55%</td>
</tr>
<tr>
<td>Access to Electricity</td>
<td>62%</td>
</tr>
<tr>
<td>Main Industries</td>
<td>Textiles; Agriculture (rice/jute); Construction</td>
</tr>
</tbody>
</table>

(a) Study Map Q5A, Map Q5B, Diagram Q5A, Diagram Q5B, and Diagram Q5C. Explain why there is a need for water management in the Karnafuli River Basin.

(b) Referring to a water control project you have studied, discuss the positive and negative environmental impacts created by the construction of a major dam and its associated reservoir.
Question 6: Development and Health

Look at Table Q6.

Table Q6: Selected Developing Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>GNI (Gross National Income) per capita (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Venezuela</td>
<td>13,600</td>
</tr>
<tr>
<td>Nigeria</td>
<td>2,800</td>
</tr>
<tr>
<td>Malawi</td>
<td>900</td>
</tr>
</tbody>
</table>

(a) **Explain** why using only one development indicator, such as Gross National Income (GNI) per capita, may fail to reflect accurately the true quality of life within a country.

(b) Referring to specific Primary Health Care strategies you have studied:

(i) **explain** how these strategies meet the health care needs of the people in a developing country; and

(ii) **comment on** the effectiveness of these strategies.
Question 7: Global Climate Change

(a) Explain the physical causes of climate change. 4

(b) Study Diagram Q7. Explain possible strategies for managing climate change. 6

Diagram Q7: Levels of managing Climate Change

- International level
- National level
- Local level

[Turn over]
Question 8: Trade, Aid and Geopolitics

Table Q8: Trade Patterns of Selected Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Population (millions)</th>
<th>GDP per Capita (US$)</th>
<th>Exports (billions US$)</th>
<th>Imports (billions US$)</th>
<th>Balance of Trade (billions US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>23</td>
<td>67,304</td>
<td>252</td>
<td>245</td>
<td>+7</td>
</tr>
<tr>
<td>USA</td>
<td>318</td>
<td>51,704</td>
<td>1,575</td>
<td>2,273</td>
<td>−698</td>
</tr>
<tr>
<td>Germany</td>
<td>81</td>
<td>41,866</td>
<td>1,493</td>
<td>1,233</td>
<td>+260</td>
</tr>
<tr>
<td>UK</td>
<td>64</td>
<td>39,161</td>
<td>475</td>
<td>646</td>
<td>−171</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>30</td>
<td>24,524</td>
<td>376</td>
<td>147</td>
<td>+229</td>
</tr>
<tr>
<td>Botswana</td>
<td>2</td>
<td>16,400</td>
<td>3</td>
<td>7</td>
<td>−4</td>
</tr>
<tr>
<td>Russia</td>
<td>144</td>
<td>14,302</td>
<td>515</td>
<td>341</td>
<td>+174</td>
</tr>
<tr>
<td>Brazil</td>
<td>201</td>
<td>11,358</td>
<td>245</td>
<td>241</td>
<td>+4</td>
</tr>
<tr>
<td>South Africa</td>
<td>53</td>
<td>7,525</td>
<td>91</td>
<td>99</td>
<td>−8</td>
</tr>
<tr>
<td>China</td>
<td>1,361</td>
<td>6,071</td>
<td>2,210</td>
<td>1,772</td>
<td>+438</td>
</tr>
<tr>
<td>Ghana</td>
<td>25</td>
<td>3,500</td>
<td>13</td>
<td>18</td>
<td>−5</td>
</tr>
<tr>
<td>India</td>
<td>1,241</td>
<td>1,499</td>
<td>318</td>
<td>516</td>
<td>−198</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>13</td>
<td>600</td>
<td>7</td>
<td>4</td>
<td>+3</td>
</tr>
</tbody>
</table>

(Data from CIA World Fact book — 2013)

(a) Study Table Q8 above.

To what extent does the data in the table show inequalities in the pattern of world trade?  

(b) Give reasons for the inequalities in the pattern of trade shown in the table or between other countries that you have studied.
Question 9: Energy

Graph Q9A: Total UK energy consumption (1970–2030)

(a) Look at Graph Q9A above.

**Suggest reasons** for the changes in energy consumption in the UK.

Diagram Q9B: Hydraulic Fracturing ("Fracking") to extract shale gas

(b) Look carefully at Diagram Q9B above.

**Discuss** the advantages and disadvantages of hydraulic fracturing ("fracking"), or any other non-renewable source of energy you have studied, in meeting the energy demands of a country.
Question 10

East Sussex County Council is building a new by-pass from 743091 to 776111 (The Bexhill–Hastings Link Road), however, not everyone is pleased with this decision.

Study the OS Map (Extract No 2214/EXP124: Hastings and Bexhill), Map Q10, Diagram Q10A, Diagram Q10B, Diagram Q10C and Diagram Q10D, before answering this question.

Referring to evidence from the OS map extract, and other information from the sources, discuss:

(a) the advantages and disadvantages of the proposed route; and
(b) any possible impacts on the surrounding area.

Diagram Q10A: Part of Sussex Wildlife Trust's response to the new road proposal

“Sussex Wildlife Trust strongly objects to the Bexhill–Hastings Link Road Scheme. The proposals do not represent sustainable development. The scheme will result in unacceptable environmental damage.”

Map Q10: Route of the Bexhill to Hastings Link Road
Question 10 (continued)

Diagram Q10B: Average Hourly Traffic Flow on the A259 at Glyne Gap 768082 June 2012

Diagram Q10C: Number of days that safe air pollution levels were exceeded at Glyne Gap 768082 June 2011 to June 2013

Diagram Q10D: Predicted visual impact on the Combe Havan Valley (View East from 757107) towards Adam's farm

Current View

Artist impression of view in 2020

[END OF QUESTION PAPER]
ACKNOWLEDGEMENTS


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Diagram Q10D – Images are taken from Department of Transport. © Crown Copyright.
ORDNANCE SURVEY MAP
For Question 10

Note: The colours used in the printing of this map extract are indicated in the four little boxes at the top of the map extract. Each box should contain a colour; if any does not, the map is incomplete and should be returned to the Invigilator.