INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen.
Write your name, centre number and candidate number in the spaces at the top of this page.
Answer all questions.
Write your answers in the spaces provided in this booklet. Where the space is not sufficient for your answer, continue the answer at the back of the book, taking care to number the continuation correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.
You are reminded that assessment will take into account the quality of written communication used in your answers that involve extended writing.
1. **(a)** Study the OS map extract and photograph below.

A full key to the map is given on page 24.

(i) Use the map to name **one** tributary of the Afon (River) Elan. [1]

(ii) Give the four figure grid reference for the meander Y in the photograph. [1]
(iii) The photograph was taken from point X on the map. Give the direction that the camera was pointing by choosing from the list below. [1]

- south-west
- north
- north-west
- west

(iv) On the photograph, draw an arrow to one slip-off slope and label it. [1]

(v) Explain how a slip-off slope is formed. [3]

(b) Study the graph below.

UK spending on flood defences

![Graph showing spending on flood defences]

(i) Complete the graph to show spending of £810 million in 2012. [1]

(ii) Describe the trend in spending on flood defences since 2001. [2]
Study the different viewpoints of the people below.

House owner

'I live next to a river and believe that the government should spend money on hard engineering projects like flood walls whatever the cost.'

River scientist

'More people are likely to be at risk from flooding in the future. We need to plan future building away from floodplains so that the floodplains can do their natural job.'

Environmentalist

'We need to use more soft engineering schemes which are kinder to the environment but also reduce the risk of flooding.'

Choose at least two of the people above. How and why do their views differ on future management of floodplains?

[5]
The map shows that The Netherlands is a country with very ------ relief. Large areas, including the city of ------ are below sea level.

(ii) Use the map to estimate the percentage of The Netherlands that is below sea level. Underline the correct answer below. [1]

5%  25%  45%  65%

(iii) Why do you think that people who live around Amsterdam are concerned about climate change? [2]
(b) Study the photograph below.

Energy in the Netherlands

(i) Use the photograph only to give one way in which technology is being used in the Netherlands to fight climate change. [1]

(ii) Suggest how technology like this can help to reduce the impact of climate change. [2]

(iii) Describe one way in which people can change their lifestyles to help reduce the risk of climate change. [2]
(c) Describe the possible effects of climate change on any country you have studied. [5]
3.  (a) Study the map below.

(i) Write the correct letters in the boxes on the diagram to identify the two features below. [1]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Destructive plate boundary</td>
</tr>
<tr>
<td>B</td>
<td>Constructive plate boundary</td>
</tr>
</tbody>
</table>
(ii) The diagram below shows the plate boundary at X on the map.

![Diagram of plate boundary with letters A, B, C, and D, and a volcano labeled A.]

Put the correct letter from the diagram in the box below to identify each feature. [3]

<table>
<thead>
<tr>
<th>Feature</th>
<th>Letter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continental Plate</td>
<td></td>
</tr>
<tr>
<td>Ocean Trench</td>
<td></td>
</tr>
<tr>
<td>Volcano</td>
<td></td>
</tr>
<tr>
<td>Oceanic Plate</td>
<td></td>
</tr>
</tbody>
</table>

(iii) Explain how the feature at B is formed. Add to the diagram to help your answer. [3]
(b) Study the photograph below.

**Earthquake Impact**

Use evidence from the photograph only to give three impacts of a major earthquake in a large city. [3]
(c) Describe ways in which the effects of earthquakes can be reduced. Use examples to support your answer. [5]
Theme 4 – Changing Populations

4. (a) Study the graph below.

Population growth in Western Europe and Sub-Saharan Africa

<table>
<thead>
<tr>
<th>Year</th>
<th>Western Europe</th>
<th>Sub-Saharan Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td></td>
<td>0.3 billion</td>
</tr>
<tr>
<td>1960</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2040</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2050</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(i) Complete the paragraph below by adding answers from the box. [3]

The graph shows that in 1950 the population of Sub-Saharan Africa was 0.3 billion \( \qquad \) than Western Europe. From 1950-2010 it has grown at a \( \qquad \) rate than Western Europe’s population. Population in the two regions was the same in 2004, after which it levelled out in Western Europe. It is forecast that population in Sub-Saharan Africa will continue to rise rapidly, reaching \( \qquad \) by 2050.
(ii) Suggest one reason for this rapid population growth in Sub-Saharan Africa. [2]

(iii) Choose which of the population pyramids below best shows the population structure of Sub-Saharan Africa if this rate of growth continues. Put a tick (√) in the box next to the correct answer. [1]

(iv) Give one reason to explain why you chose this pyramid. [1]
(b) Study the map below.

India’s population density (People / km\(^2\))

(i) Complete the map to show population density of 150 people per km\(^2\) in region X. [1]

(ii) Describe the distribution of population density in India. [2]
(iii) Explain why some parts of the world are sparsely populated. Use one or more examples to help your answer.
5. **Globalisation** has led to an increase in tourism to and from poorer countries like India.

(a) Study the graph below.

![Graph showing the increase in tourism](image)

(i) Using the graph only, tick (√) the three statements about Indian tourism below that are true.  

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>The number of tourists visiting India has risen faster than the number of Indian citizens going abroad</td>
</tr>
<tr>
<td>B</td>
<td>Just under 6 million people visited India in 2010</td>
</tr>
<tr>
<td>C</td>
<td>Tourism to and from India has increased since 1997</td>
</tr>
<tr>
<td>D</td>
<td>More foreign tourists visit India than Indian citizens go abroad</td>
</tr>
<tr>
<td>E</td>
<td>The number of Indian citizens visiting other countries has more than trebled since 1997</td>
</tr>
</tbody>
</table>
(ii) Suggest how any one of the factors below which affect globalisation may have helped the growth in Indian tourism. Tick (√) the box you have chosen. [3]

- The internet
- Increasing wealth
- Transport improvements
- Culture

(b) Study the photograph below.

A large British company locates its call centre in India

(i) Suggest why some British companies have located their call centres in India. [2]

(ii) Why might some people be unhappy with this decision? [2]
(c) Describe ways in which Newly Industrialised Countries (NICs) like India and China have benefited from globalisation in recent years.
Theme 6 – Development

6. (a) Study the photograph below which shows a project by the charity WaterAid in Kenya, Sub-Saharan Africa.

(i) Use photograph evidence only to suggest what this WaterAid project has done. [2]

(ii) Suggest how this project may have improved the lives of the local community. [3]
(b) Reducing Infant mortality by 2015 is one of the Millennium Development Goals.

Study the graph below.

(i) Use the graph to describe the progress being made in Sub-Saharan Africa towards achieving its target for infant mortality.

(ii) Suggest one reason to explain why infant mortality is higher in some places than others.
(c) Describe how patterns of development can differ within one country you have studied. You must draw and sketch a map of the country to help your answer.

Name of country ..........................................................
## Explorer™ series (1:25 000 scale)

### Explorer Map symbols

#### ROADS AND PATHS
Not necessarily rights of way
- Motorway
- Service Area
- Junction Number

- Dual carriageway
- Trunk or Main road
- Secondary road
- Narrow road with passing places
- Road under construction
- Road generally more than 4 m wide
- Road generally less than 4 m wide
- Other road, drive or track, fenced and unfenced
- Track: upper: steep up 20% (1:5); mid: flat (1:50); lower: steep down 20% (1:5)
- (V) Vehicle; (P) Passenger
- Path

#### RAILWAYS
- Multiple track
- Single track
- Signboard
- Name gauge
- Light Rapid Transit System with station
- Road over/under level crossing
- Cutting; (lane) embankment
- Station, open to passengers; sleeping

#### OTHER PUBLIC ACCESS
- Other routes with public access

The exact nature of the rights on these routes and the existence of any restrictions may be checked with the local highway authority. Alignments are based on the best available information.

- National Trail / Long Distance Route:
- Restorative route
- Permitted footpath:
- Permitted bridleway:

Footpaths and bridleways are those lockdowns over which public use is allowed but which are not rights of way. The agreement may be withdrawn.

- Off road cycle routes

#### BOUNDARIES
- - National
- - County
- - Constituency (Constituency Boundary): Electoral Region (ER); or Burgh Client
- - Civil Parish (CP); or Community (C)
- - Unitary Authority (UA), Metropolitan District (Met Dist), London Borough (LB) or District
- - National Park

#### ARCHAEOLOGICAL AND HISTORICAL INFORMATION
- Site of antiquity
- Site of battle with dates
- Villa
- Ruin
- Castle
- Non-Roman
- Visible earthwork

**NB. Due to changes in specification there are differences on some sheets**

Ordinance Survey, OS and the OS Symbol are registered trademarks, and Explorer is a trademark of Ordnance Survey, the national mapping agency of Great Britain.

Made, printed and published by Ordnance Survey, Southampoton, United Kingdom. For educational use only.

September 2004 © Crown copyright 2004. All rights reserved

© WJEC CBAC Ltd.

### GENERAL FEATURES

- Gravel pit
- Sand pit
- Other pit or quarry
- Landfill site or tip heap
- (with store, with stack, or dirty)
- Place of worship
- Building: important building
- Glassworks
- Youth hostel
- Burial/pagoda/tomb/fort
- Other hospital (selected areas only)
- Bus or coach station
- Lighthouse; disused lighthouse;
- Beacon
- Trig point
- Windmill: with or without sails
- Wind pump; wind generator
- Electricity transmission line
- Slipway

#### HEIGHTS AND NATURAL FEATURES

<table>
<thead>
<tr>
<th>Height and feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>52</td>
<td>Ground survey height</td>
</tr>
<tr>
<td>50</td>
<td>Air survey height</td>
</tr>
</tbody>
</table>

Surface heights are to the nearest metre above mean sea level. Heights shown above are triangulation pillar refer to the ground level height at the pillar and not necessarily at the summit.

#### VEGETATION

Vegetation limits are defined by positioning of symbols.
- Coniferous trees
- Non-coniferous trees
- Coppice
- Orchard
- Scrub
- Broken, heath or rough grassland
- Marsh; reeds or swards.

#### ACCESS LAND

<table>
<thead>
<tr>
<th>Access land boundary and limit</th>
</tr>
</thead>
</table>

Access land in wooded area

Access information point

#### MANNED ACCESS

<table>
<thead>
<tr>
<th>Access permitted within managed controls for example, local byelaws</th>
</tr>
</thead>
</table>

Firing and test ranges in the area: (Danger) Observe warning notices

#### TOURIST AND LEISURE INFORMATION

<table>
<thead>
<tr>
<th>Information centre seasonal</th>
</tr>
</thead>
</table>

Information centre

Forestry Commission visitor centre

Garden / arboretum

Sailing school

Information centre

National Park Information Point

Museum

Nalure reserve

National Trust property

Other tourist feature

Park

Pleasure ground

Public house

Public convenience

Fishing

Forestry Commission visitor centre

Thermal / pleasure park

Telephone (mobile) / resort organisation / emergency

Viewpoint

Visitor centre

Water activities