Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____

A-level
GEOGRAPHY

Paper 2 Human geography

Friday 8 June 2018 Afternoon Time allowed: 2 hours 30 minutes

Materials

For this paper you must have:
- the colour insert (enclosed)
- a pencil
- a rubber
- a ruler.

You may use a calculator.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	

Instructions
- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions in Section A **and** Section B.
- Answer **either** Question 3 **or** Question 4 **or** Question 5 in Section C.
- 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 120.

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Section A

Answer **all** questions in this section.

Question 1 Global Governance

0 1 . 1 Explain the concept of the 'global commons'.

[4 marks]

Question 1 continues on the next page

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Figure 1a shows the mean July temperatures at Faraday, a research station in Antarctica, between 1976 and 2016.
Figure 1b is a graph showing the annual mean temperature at Faraday between 1950 and 2016.
Figure 1c shows the mean July temperatures in rank order and the formula for calculating inter-quartile range.

Figure 1a

Year	Mean July temperature (°C)
1976	–11.8
1980	–16.0
1984	–6.4
1988	–5.4
1992	–10.4
1996	–5.7
2000	–3.8
2004	–4.8
2008	–4.7
2012	–3.9
2016	–8.5

Figure 1b

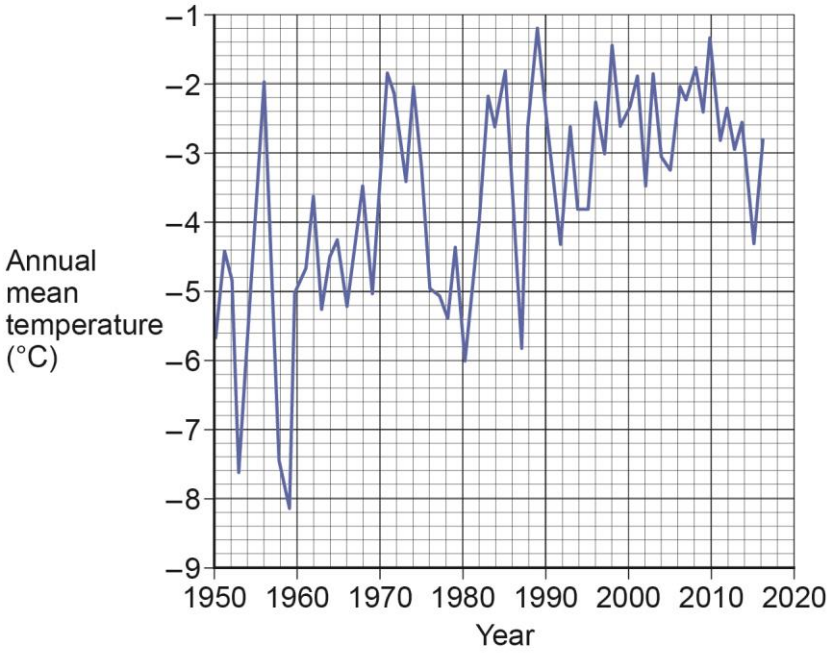

Figure 1c

Position	Mean July temperature (°C)
1	–3.8
2	–3.9
3	–4.7
4	–4.8
5	–5.4
6	–5.7
7	–6.4
8	–8.5
9	–10.4
10	–11.8
11	–16.0

Inter-quartile range:

Upper-quartile (UQ) = $\frac{n+1}{4}$ th position = _____ °C

Lower-quartile (LQ) = $\frac{3(n+1)}{4}$ th position = _____ °C

Inter-quartile range (IQR) = _____

IQR is the difference between UQ and LQ

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0 1 . 2 Complete **Figure 1c** and analyse the temperature variations shown in **Figures 1a, 1b** and **1c**.

[6 marks]

Question 1 continues on the next page

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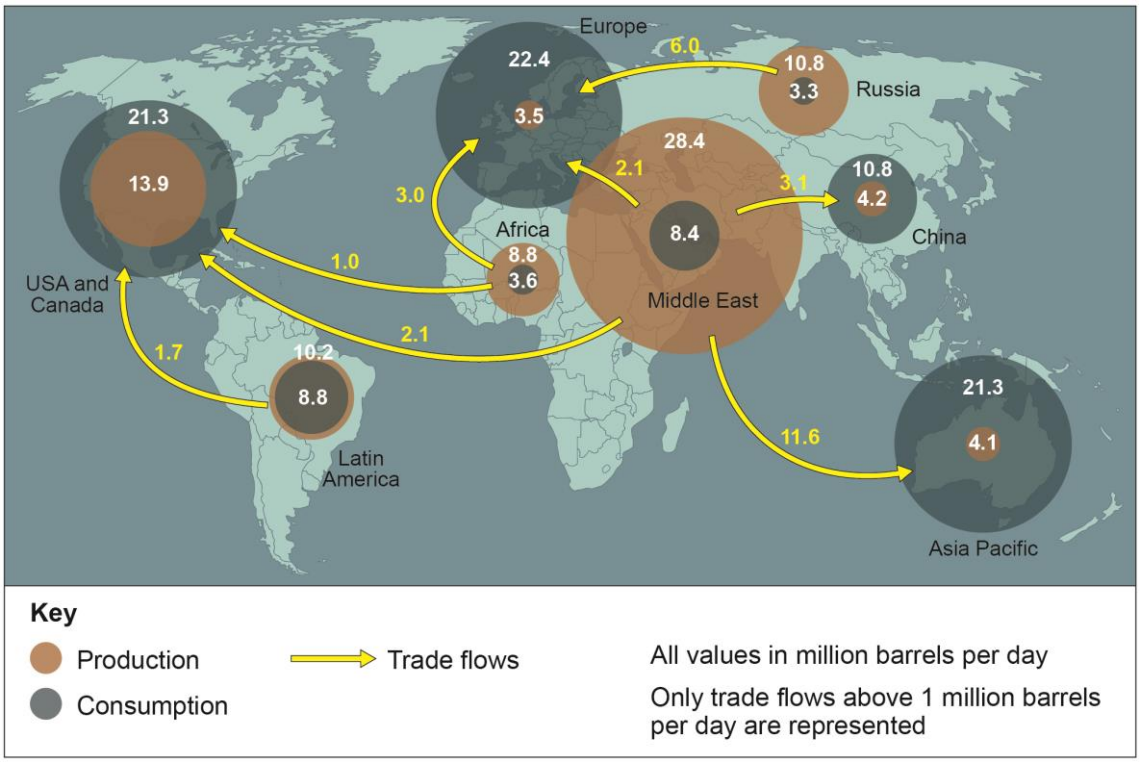
Figure 2 shows the global trade in oil in 2012.

Figure 2



0 1 . 3 Using **Figure 2** and your own knowledge, assess the extent to which this pattern is similar to the global trade in a food commodity or manufactured product you have studied.

[6 marks]

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0 1 . 4 'Transnational corporations (TNCs) are the most significant factor in creating unequal flows of people and money within global systems.'

With reference to a TNC, assess the extent to which you agree with this statement.

[20 marks]

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End of Section A

36

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Section B

Answer **all** questions in this section.

Question 2 **Changing Places**

0 2 . 1 Explain why an outsider perspective might give a different sense of place to an insider perspective.

[4 marks]

Question 2 continues on the next page

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Figure 3a shows qualitative data measuring personal well-being across selected inner London boroughs.
Figure 3b shows average income of employed residents in each selected borough.

Figure 3a

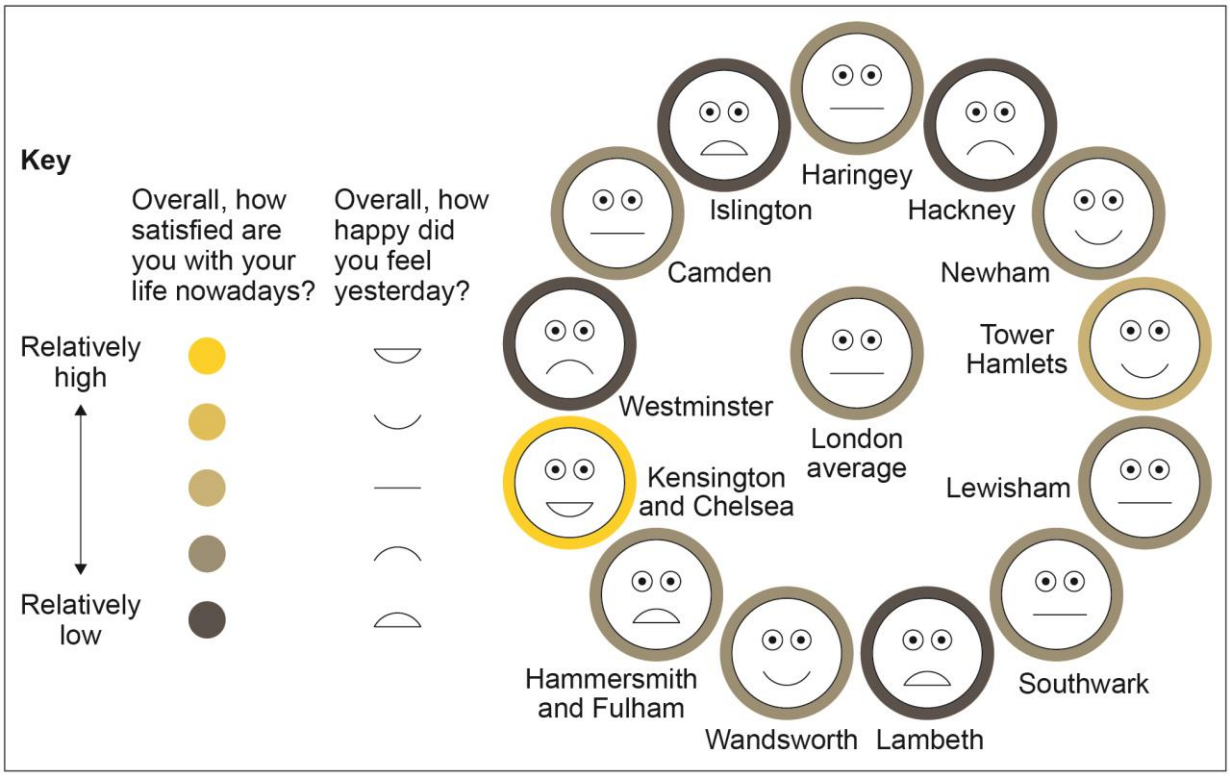
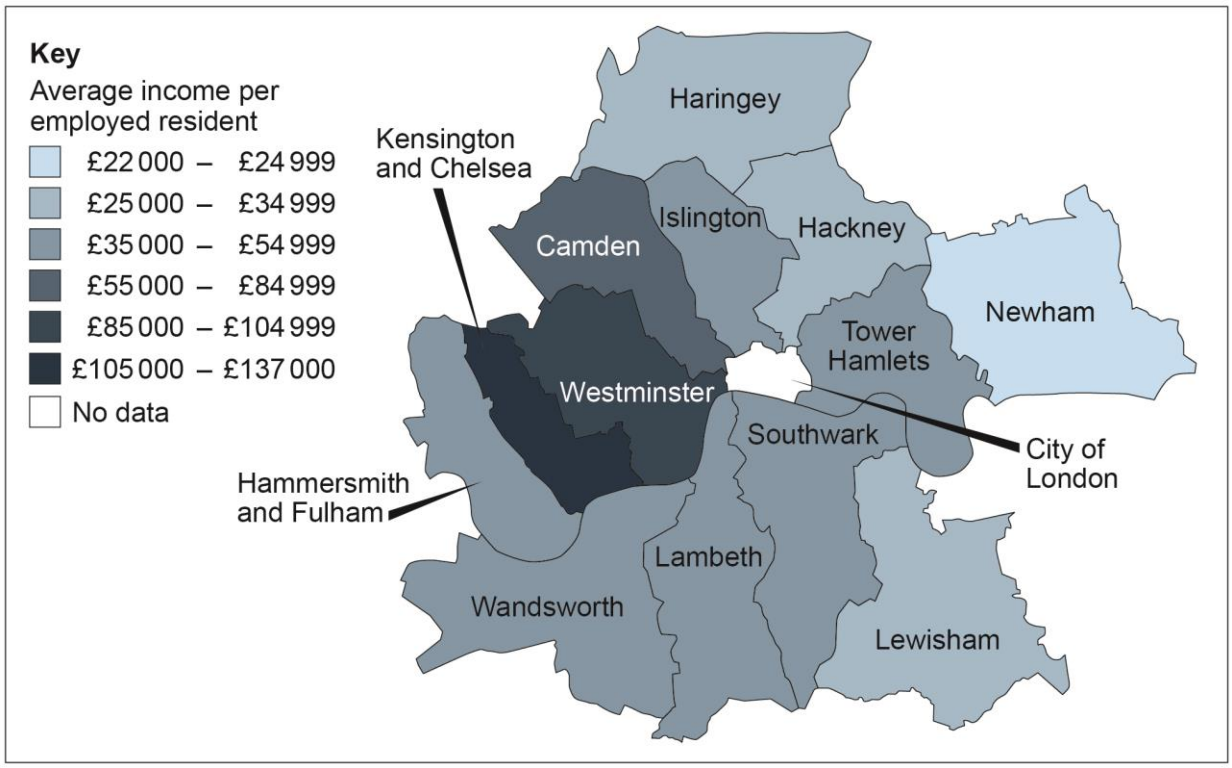


Figure 3b



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0 2 . 2 Analyse the data shown in **Figure 3a** and **Figure 3b**.

[6 marks]

Question 2 continues on the next page

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Figure 4a is a photograph of a slate-mining village in North Wales.
Figure 4b is a painting of a slate-mining village in North Wales.

Figure 4a

Figure 4b

[*Grey Shades* by Jonas Plosky cannot be reproduced here due to third-party copyright restrictions.]

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0 2 . 3 Using **Figure 4a**, **Figure 4b** and your own knowledge, suggest how physical geography contributes to the character of a place.

[6 marks]

Question 2 continues on the next page

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0 2 . 4 'The changing character of a place over time is more effectively represented by statistical and cartographical sources than artistic sources such as painting, poetry and photography.'

With reference to either your local or distant place, critically assess the extent to which you agree with this statement.

[20 marks]

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End of Section B

36

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Section C

Answer **one** question in this section.

Answer **either** Question 3 **or** Question 4 **or** Question 5.

For the multiple-choice questions, completely fill in the circle alongside the appropriate answer.

CORRECT METHOD ● WRONG METHODS ⊗ ⊙ ≈ ✓

If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

Question 3 Contemporary Urban Environments

0 3 . 1 Select the correct pair of consequences that result from the development of edge cities.

[1 mark]

A Gentrification of inner-city areas — Social segregation ○

B Deindustrialisation — Increased photo-chemical pollution ○

C Loss of rural habitats — Gentrification of inner-city areas ○

D Social segregation — Loss of rural habitats ○

0 3 . 2 Choose the correct definition for urbanisation from the list below.

[1 mark]

A The increasing number of people living in towns and cities ○

B The increasing proportion of the population living in towns and cities ○

C The movement of people from inner city areas into the suburbs ○

D An increase in the number of megacities in a given region ○

Question 3 continues on the next page

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0 3 . 3 Which of the following describes the process of decentralisation?

[1 mark]

A It is now cheaper to manufacture steel in China due to the nearby availability of raw materials and large low-cost supply of labour. This has resulted in the closure of steel plants such as Tata Steel in Redcar. ⬭

B In Notting Hill, individuals moved into large slum houses and began to redevelop them. House prices began to rise and landlords, realising they could make a quick profit, sold these houses to private property developers. There are also many boutiques and gastropubs in the area. ⬭

C Decline in manufacturing in the UK has led to the rise of the service economy in urban areas. This has occurred due to the increased technology demands of a consumer society. As a result more people work in quaternary-based ICT industries than manufacturing. ⬭

D In the UK, the government encouraged the relocation of government agencies and public bodies away from London. Examples include the DVLA relocating to Swansea and the BBC moving to Media City in Salford. ⬭

0 3 . 4 Which of the following is an accurate description of characteristics of the water cycle in an urban area?

[1 mark]

A Increased infiltration, increased precipitation, increased baseflow ⬭

B Reduced throughflow, decreased surface runoff, reduced precipitation ⬭

C Decreased infiltration, increased surface runoff, reduced throughflow ⬭

D Decreased surface runoff, decreased infiltration, decreased baseflow ⬭

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Figure 5a, on the insert, shows a map of Portland, a city in north-west USA.
Figure 5b, on the insert, shows the urban heat island effect for Portland in June 2015.

0 3 . 5 Analyse the data shown in **Figure 5a** and **Figure 5b**.

[6 marks]

Question 3 continues on the next page

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Figures 6a and **6b** are images of Vancouver, a city in western Canada.
Figure 6c shows the ethnicity of Vancouver residents.
Figure 6d shows employment in Vancouver by sector in 2015.

Figure 6a

Figure 6b

Figure 6c

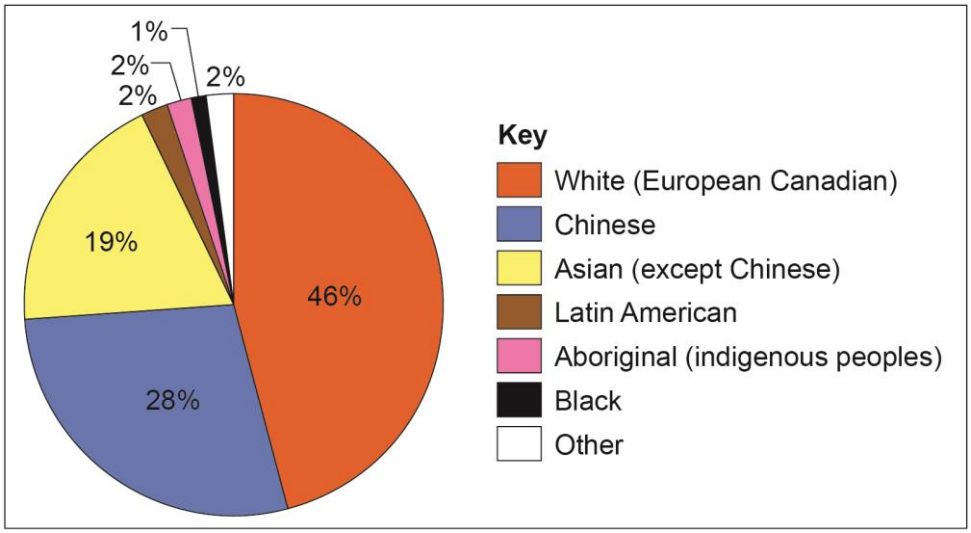

Figure 6d

Employment sector	Thousands
Goods producing sector	**222.6**
Agriculture	7.2
Forestry, fishing, mining and utilities	17.0
Construction and manufacturing	198.4
Services producing sector	**1070.9**
Trade and retail	196.3
Transportation and warehousing	85.2
Finance and business	144.0
Science and technology	130.5
Education, health and public administration	291.2
Recreation and tourism	169.7
Other services	54.0

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0 3 . 6 Using **Figures 6a, 6b, 6c, 6d** and your own knowledge, assess the extent to which you agree that Vancouver is an example of a post-modern western city.

[9 marks]

Question 3 continues on the next page

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0 3 . 7 Evaluate the relative importance of strategies used to develop sustainable cities in overcoming environmental problems for **one** urban area you have studied.

[9 marks]

Do not write outside the box

0 3 . 8 'Britain's urban regeneration policies since 1979 have failed to address problems of economic inequality and social segregation. The gap between the richest and the poorest urban residents has widened.'

To what extent do you agree with this statement?

[20 marks]

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End of Question 3

48

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Question 4 Population and environment

0 4 . 1 Morbidity can be defined as:

[1 mark]

A the prevalence of disease and poor health within a specific area or population

B the number of deaths per 1000 people per year

C the biological age of someone's body regardless of their chronological age

D a medical condition that is non-infectious and non-transmissible in young people

0 4 . 2 Which of the following population data would be appropriate to present as a dot map?

[1 mark]

A The number of refugees moving from Syria to Greece

B The percentage of residents who live below the poverty line in each region of England

C The distribution of people of Afro-Caribbean origin across London

D The birth rate of each country in Europe

Question 4 continues on the next page

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0 4 . 3 Choose the example from the list below that supports a Malthusian perspective on population growth.

[1 mark]

A The Chinese government launched the one-child policy in 1979. Families were fined if they broke the rules. This policy resulted in many families becoming bankrupt but it prevented over 400 million births.

B The development of miracle rice crops in the 1960s such as IR8 in India tripled the yields of rice. This reduced the number of famines despite an increasing population growth rate of over 2% during the 1960s and 1970s.

C The Water Project in Uganda has provided borehole wells and hand pumps to many villages. The use of appropriate technology means that the villages can maintain the wells themselves. As a result, death rates from diseases such as typhoid have fallen.

D In the 1980s there were a series of famines in Ethiopia. These famines occurred as a result of failed harvests due to drought and population pressure. There was also a civil war which prevented the distribution of food aid.

0 4 . 4 Which of the following statements is true of the concept of the first Demographic Dividend?

[1 mark]

A It occurs in stage 5 of the demographic transition model as death rates exceed birth rates. This results in a smaller workforce that has to support an ageing population which drains resources.

B It occurs in stage 2 of the demographic transition model when birth rates are very high and death rates fall, meaning that more money is invested into healthcare.

C It occurs in stage 3 of the demographic transition model as the dependency ratio falls and there is more income per person.

D It occurs in stage 4 of the demographic transition model when the workforce begins to decline and there are more elderly dependents who need greater levels of healthcare.

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Figure 7a, on the insert, shows the predicted effects of a 3 °C increase in temperatures on crop yields by 2050.
Figure 7b, on the insert, shows the percentage of the population by country who were undernourished in 2013.

0 4 . 5 Analyse the data shown in **Figure 7a** and **Figure 7b**.

[6 marks]

Question 4 continues on the next page

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Figure 8 is a newspaper article from The Guardian which discusses food security issues in Ghana.

Figure 8

Ghana hopes G8 New Alliance will end long history of food insecurity

Despite Ghana's large tracts of fertile land, the west African country has a long history of food insecurity. Millions in the south are no longer at risk, but the number of vulnerable people in the more arid north has increased in recent years.

The government says that is why Ghana has signed up to the G8 New Alliance for Food Security and Nutrition in 2012. Under the initiative, the country will focus on five crops: cowpea, maize, cassava, rice and yam.

"This is really about improving the environment of aid effectiveness, food and nutrition so that countries can really take ownership of their food security and initiatives," said the Deputy Food and Agriculture Minister. "Ghana has huge potential in horticultural crops, in vegetables and fruits like pineapple. But natural resources by themselves do not bring economic returns. What is needed is more investment. There are better seeds than we are using, high-yield hybrid seeds that can double or triple harvests."

There was, however, almost no knowledge of the G8 initiative among some stakeholders, including farmers and agricultural campaign groups contacted by The Guardian. The government admits that it could have done more to consult those involved in the agricultural sector before signing up to the plan.

Confusion surrounding the plans is made worse, critics say, by a dizzying array of regional and national agriculture programmes that are inaccessible to ordinary people. All the initiatives involve providing more incentives for the private sector to buy and cultivate land, and to become involved in the country's seed industry. But there has been growing concern in Ghana that the commercialisation of the food industry will not benefit small farmers.

A spokesperson from the University of Ghana's agriculture college said "For the peasant farmers in Ghana, land is life. If multinational producers are given the ability to buy large quantities of land, then naturally the farmers who depend on those facilities may be deprived of their livelihood. And so most people would have serious concerns about that."

Do not write outside the box

0 4 . 6 Using **Figure 8** and your own knowledge, evaluate strategies used to ensure food security.

[9 marks]

Question 4 continues on the next page

Do not write outside the box

0 4 . 7 Assess the extent to which population change in one country you have studied fits the demographic transition model.

[9 marks]

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0 4 . 8 'The role of international agencies and NGOs in combating disease will increasingly need to focus on the health impacts resulting from global environmental change.'

To what extent do you agree with this statement?

[20 marks]

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End of Question 4

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Turn over for Question 5

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Question 5 Resource Security

0 5 . 1 Which of the following is a correct list of gases that are major contributors to the enhanced greenhouse effect?

[1 mark]

A Methane, helium, oxygen ⬭

B Methane, hydrogen, hydrofluorocarbons ⬭

C Methane, hydrofluorocarbons, carbon dioxide ⬭

D Methane, carbon dioxide, hydrogen ⬭

0 5 . 2 What is an inferred resource?

[1 mark]

A A resource where the quantity and grade can be estimated with confidence using inspection sites that are situated far apart. The economic viability can be confidently assessed and planned for. ⬭

B A resource where the grade or quality can only be estimated on the basis of limited geological sampling. There is insufficient data to justify expenditure on exploiting the resource. ⬭

C A resource where the quality and grade of the resource can be measured accurately. A preliminary feasibility study indicates that it is economically viable and extraction is justified. ⬭

D A resource that has a finite supply. It is economically viable and extraction is justified. Confidence in the supply is measured by wide geological sampling. ⬭

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0 5 . 3 Which of the following is an example of a local water conflict?

[1 mark]

A In 2015 Islamic State militants fighting in Iraq and Syria shut off and redirected water flows below the Ramadi Dam to enable the militants to cross the Euphrates. As a result, there are water shortages for hundreds of kilometres downstream, affecting thousands of people.

B In 2016, in the Peruvian town of Ocucaje, farmers set fire to plastic water pipes. These pipes were installed by a company that was diverting water 12 km from water wells in Ocucaje to irrigate grapes for export.

C In 2014 Russia took control of the region of Crimea from Ukraine. Russia accused Ukraine of cutting off the water supply in the North Crimea Canal. This led to water shortages for Crimea's farmers who grew maize, rice and grapes.

D In 2011, the Ethiopian government announced plans to build the 'Grand Ethiopian Renaissance Dam', a $4.1 billion hydroelectric dam on the Blue Nile near the border with Sudan. The potential impact on water supplies, particularly downriver, is a grave concern in Egypt.

0 5 . 4 Which of the following impacts would **not** be considered as part of an Environmental Impact Assessment (EIA) in relation to resources?

[1 mark]

A Dust and particulate matter from mining and vehicle movements

B Future possibilities for the site once the resource is exhausted or the quarry is closed

C Degradation of the landscape

D The economic cost of transporting the ore to the processing site

Question 5 continues on the next page

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Figure 9a shows greenhouse gas emissions per capita in selected European countries in 2015.
Figure 9b shows the % of electricity generated from renewable sources in selected European countries in 2015.
Figure 9c shows the selected countries.

Figure 9a

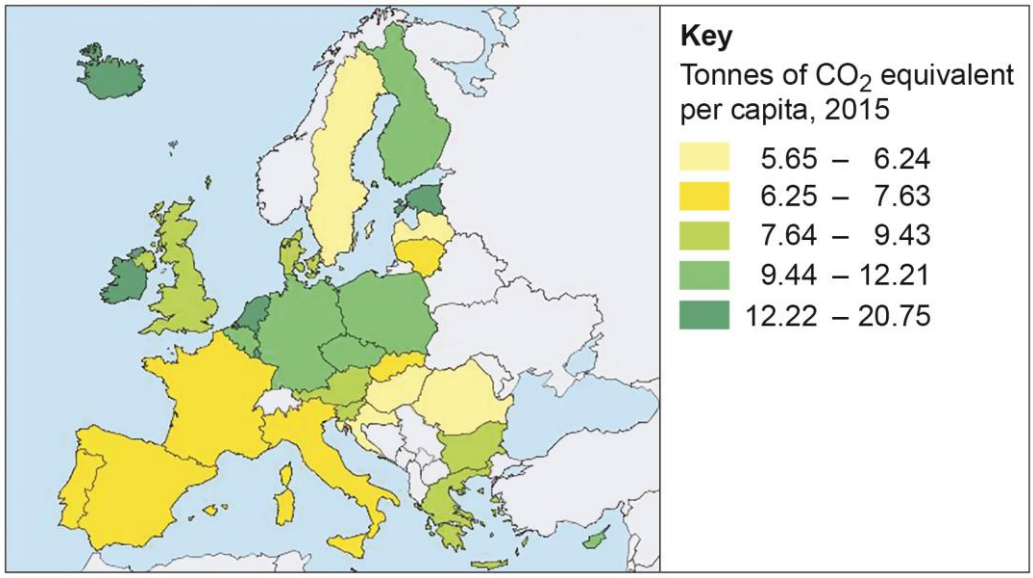

Figure 9b

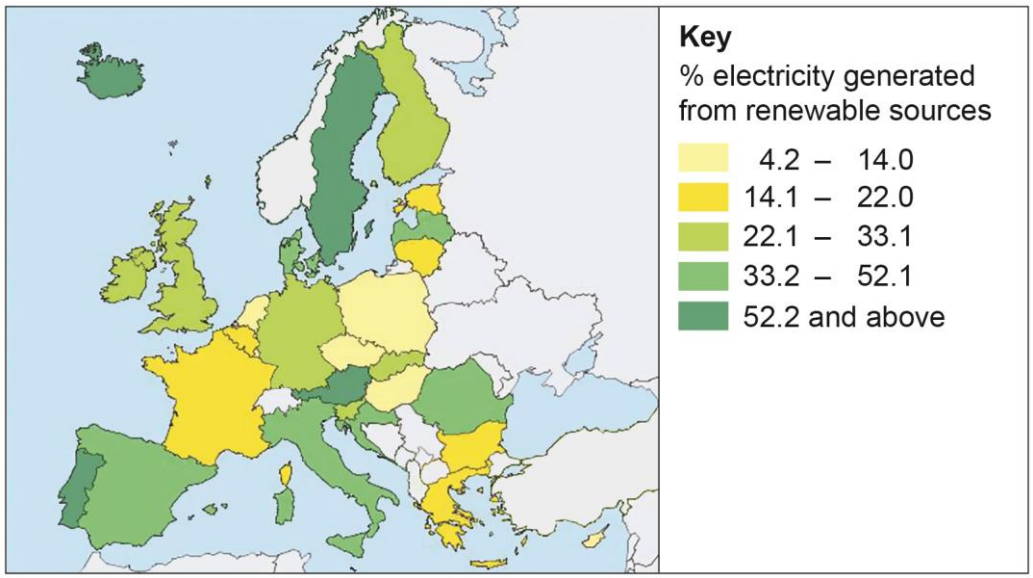

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Figure 9c

0 5 . 5 Analyse the data shown in **Figure 9a** and **Figure 9b**.

[6 marks]

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Figure 10a shows a hydro-electric scheme in Scandale Beck, an upland river in the Lake District.
Figure 10b shows electricity generation for the scheme in selected months between 2015 and 2017.

Figure 10a

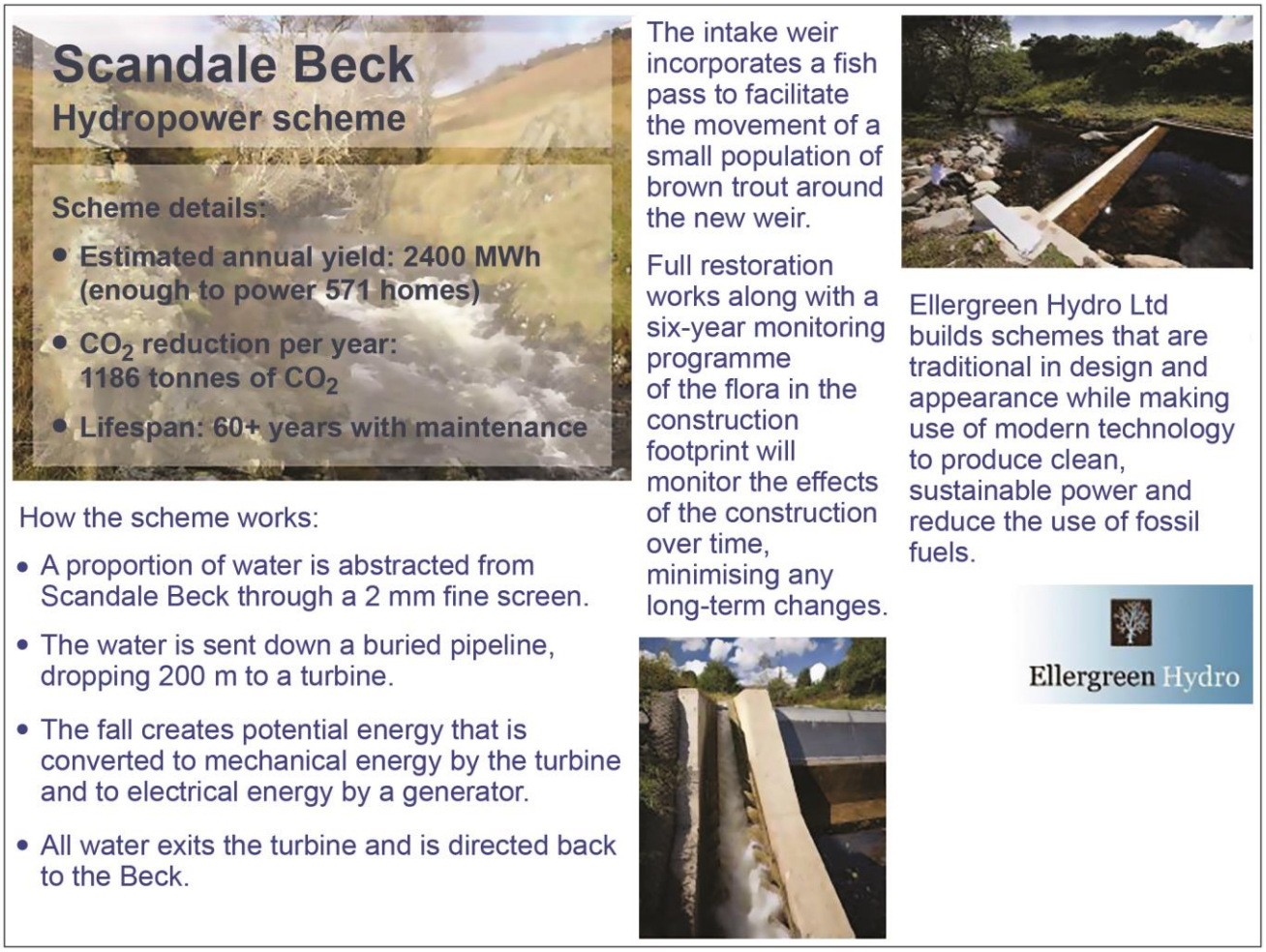

Figure 10b

Month	Potential output (MWh)	Actual output (MWh)
November 2015	653.04	646.00
April 2016	653.04	217.00
August 2016	674.81	276.00
November 2016	653.04	268.00
January 2017	674.81	181.00

MWh = Megawatt-hours, a measure of electricity generation

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0 5 . 6 Using **Figure 10a**, **Figure 10b** and your own knowledge, assess the extent to which renewable energy can be used to achieve energy security.

[9 marks]

Question 5 continues on the next page

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0 5 . 7 Evaluate the success of strategies used to reduce the demand for water in achieving long-term sustainability.

[9 marks]

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0 5 . 8 'Challenges presented by the physical environment affecting the availability and cost of a resource, will be overcome by future technological and economic developments.'

With reference to a specific place, to what extent do you agree with this statement?

[20 marks]

Question 5 continues on the next page

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END OF QUESTIONS

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