Write your name here

Surname		Other names	

Pearson
Edexcel GCSE

Centre Number

Candidate Number

Geography B
Unit 1: Dynamic Planet

Foundation Tier

Sample Assessment Material
Time: 1 hour 15 minutes

Paper Reference
5GB1F/01

You do not need any other materials.

Total Marks

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.
- In Section A, answer **all** questions.
- In Section B, answer **either** question 5 **or** 6.
- In Section C, answer **either** question 7 **or** 8.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 78.
- 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.
- Check your answers if you have time at the end.

Turn over ▶

S45137A0118

PEARSON

SECTION A: INTRODUCTION TO DYNAMIC PLANET

Answer ALL questions in this section.

Some questions must be answered with a cross in a box ⊠. If you change your mind about an answer, put a line through the box ⊠ and then mark your new answer with a cross ⊠.

Topic 1: Restless Earth

1   Figure 1 shows the possible impact of earthquakes on facilities in the San Francisco area.

Types of facility	Number of facilities likely to be damaged by earthquakes	Percentage of total facilities likely to be damaged (%)
Hospitals	76	
Emergency Services	2,970	
Elementary Schools	987	
Secondary Schools	233	
Universities	62	
Bridges	2,721	
City Railway Tracks	150 km	
Roads	30,350 km	

Figure 1

(a) Study Figure 1

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i)   Which of these has the highest percentage of damage?

(1)

⊠   **A**   Hospitals

⊠   **B**   Elementary Schools

⊠   **C**   Universities

⊠   **D**   City Railway Tracks

(ii) Which of the following is most important for preventing secondary impacts on people and property?

(1)

⊠   **A**   Secondary Schools and Elementary Schools

⊠   **B**   Elementary Schools and Roads

⊠   **C**   Hospitals and Universities

⊠   **D**   Hospitals and Emergency Services

(b) Outline the causes of tsunami.

(2)

....

....

....

....

(c) Describe **two** differences between oceanic and continental crusts.

(4)

....

....

....

....

....

....

....

....

(d) Explain how building design can help to reduce the impact of earthquakes.

(4)

....

....

....

....

....

....

....

(Total for Question 1 = 12 marks)

Topic 2: Changing Climate

2 Figure 2 shows the history of global sea level until 2008 and a range of predictions about future changes.
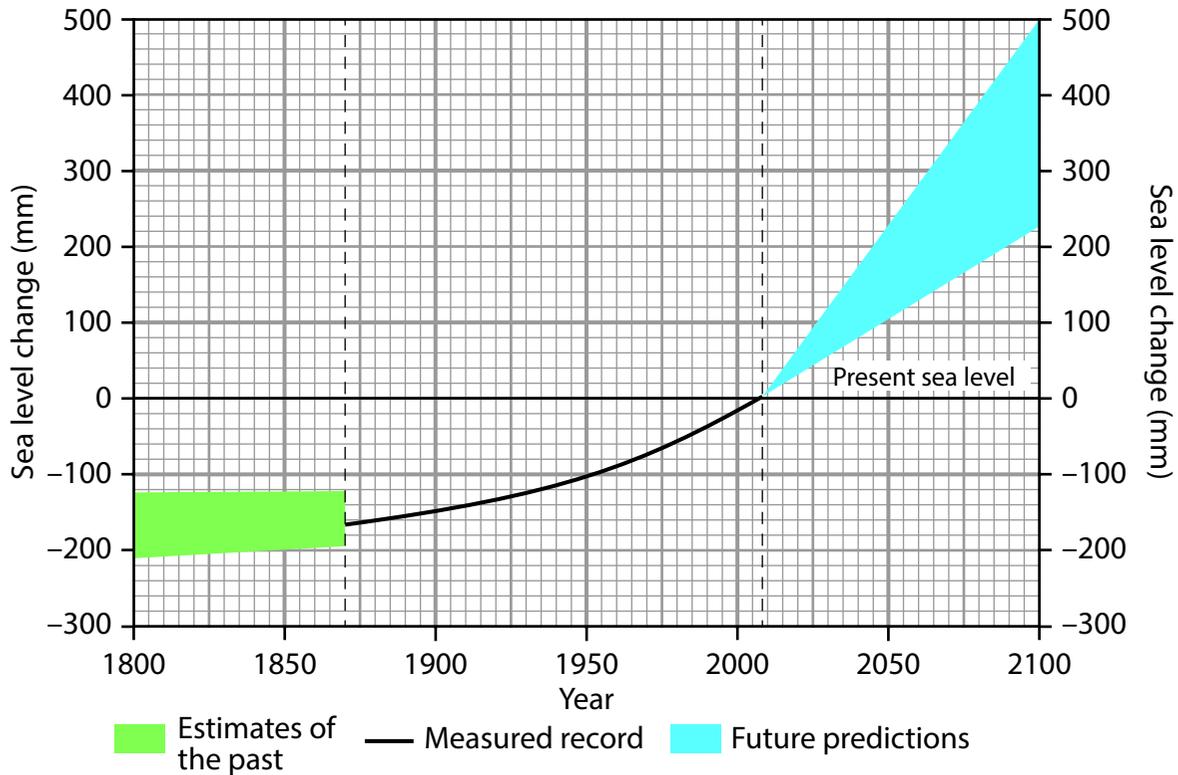

Figure 2

(a) Study Figure 2.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) Which of the following statements is correct?

(1)

⊠ **A** In 1950 sea level was about 100 mm lower than in 2008.

⊠ **B** In 1950 sea level was about 200 mm higher than in 2008.

⊠ **C** In 1950 sea level was about 200 mm lower than in 2008.

⊠ **D** In 1950 sea level was about 100 mm higher than in 2008.

(ii) Which of the following statements is correct?

(1)

⊠ **A** Projections of future sea level rise by 2100 vary by almost 300 mm.

⊠ **B** Sea level will be 1 metre lower in 2100 than it was in 1800.

⊠ **C** Sea level will be 1 metre higher in 2100 than it was in 1800.

⊠ **D** Projections of future sea level rise by 2100 vary by almost 500 mm.

(b) Outline **one** reason why sea level is expected to rise in the future.

(2)

....

....

....

....

(c) Describe **one** impact of a short-term past climate change on:

(4)

the environment

....

....

....

....

the people

....

....

....

....

(d) Explain how natural events can cause climate change.

(4)

....

....

....

....

....

....

....

(Total for Question 2 = 12 marks)

Topic 3: Battle for the Biosphere

3 Figure 3 shows the temperature and precipitation conditions for selected biomes.
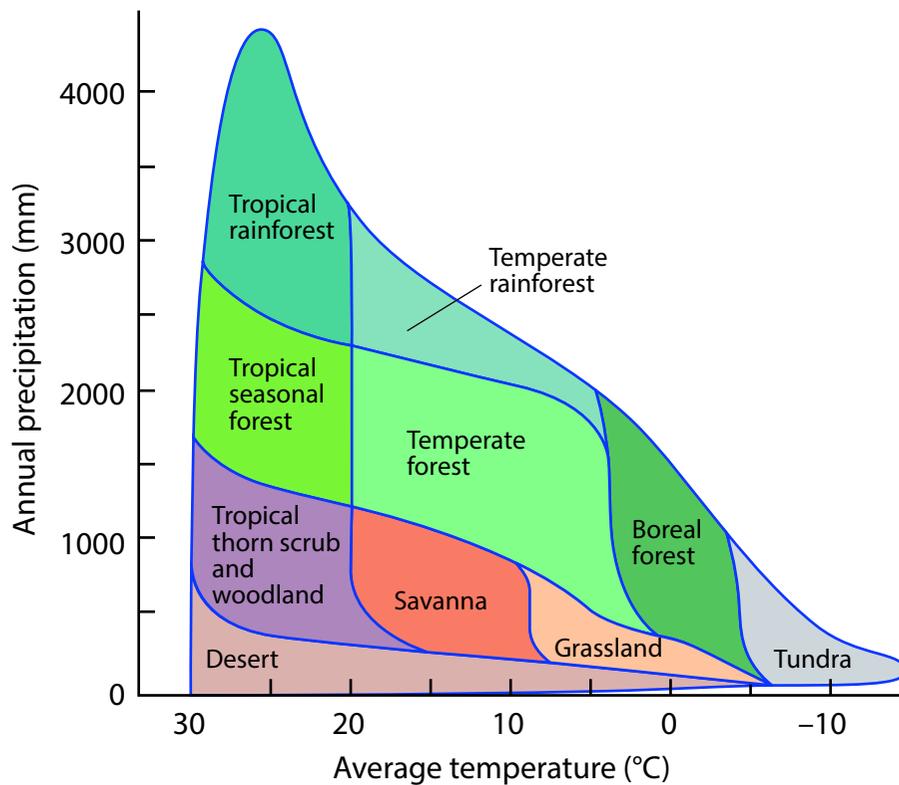

Figure 3

(a) Study Figure 3.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) Which biome is found when average temperatures are 10°C and annual precipitation is 1500 mm?

(1)

⊠ **A** Savanna

⊠ **B** Temperate forest

⊠ **C** Temperate rainforest

⊠ **D** Boreal forest

(ii) Which of the following statements is correct?

(1)

⊠ **A** Some deserts have average temperatures of 5°C.

⊠ **B** Some rainforests have less than 100 cm of precipitation.

⊠ **C** Tundra has high annual precipitation.

⊠ **D** Tropical rainforests have frequent frosts.

(b) Outline how altitude affects biome location.

(2)

....

....

....

....

....

(c) Describe **two** ways in which the biosphere acts as a 'life support system'.

(4)

....

....

....

....

....

....

....

....

....

....

(d) Explain how climate change can lead to degradation of the biosphere.

(4)

....

....

....

....

....

....

....

....

(Total for Question 3 = 12 marks)

Topic 4: Water World

4 Figure 4 shows annual rainfall for Lodwar in north-west Kenya between 1950 and 2008.
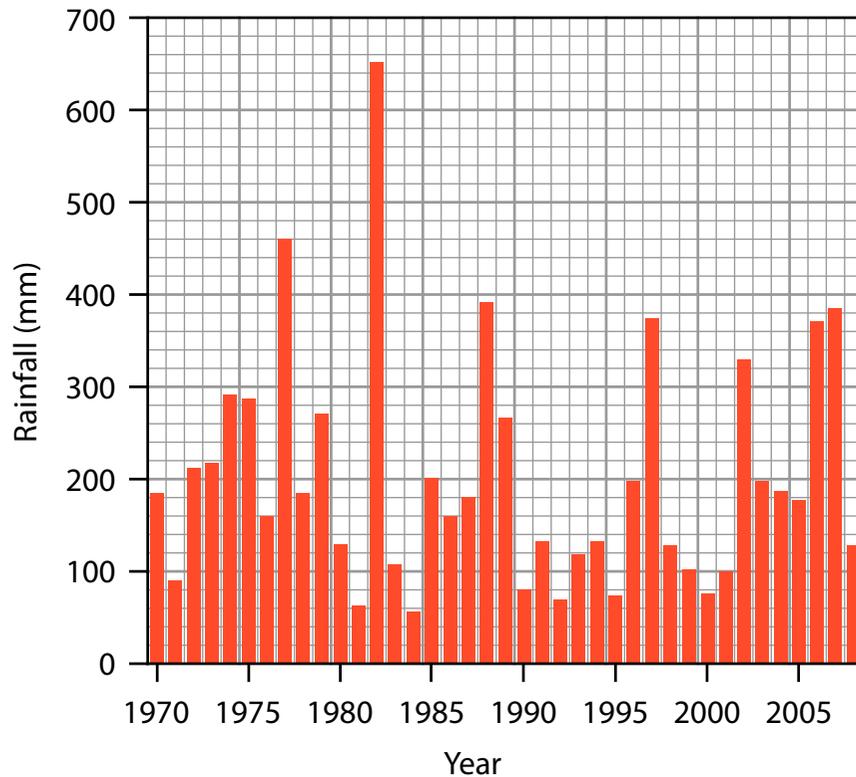

Figure 4

(a) Study Figure 4.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) Which of the following years was the most arid?

(1)

☒ **A** 2000

☒ **B** 1982

☒ **C** 1984

☒ **D** 1971

(ii) Which of the following **best** describes the trend in annual rainfall?

(1)

☒ **A** Rainfall amounts have fallen consistently.

☒ **B** Rainfall is highly variable with no obvious trend.

☒ **C** Rainfall amounts have risen although not consistently.

☒ **D** Rainfall is consistently at the same level.

(b) State **two** ways of using intermediate technology to manage water resources.

(2)

1 ....

....

2 ....

....

(c) Describe **two** ways in which human activities can affect water quality.

(4)

1 ....

....

....

....

2 ....

....

....

....

(d) Describe how water is transferred from the oceans to the atmosphere and back again.

(4)

....

....

....

....

....

....

....

....

(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 48 MARKS

SECTION B: SMALL-SCALE DYNAMIC PLANET

Answer ONE question in this section.

Topic 5: Coastal Change and Conflict

If you answer Question 5 put a cross in this box ☒ .

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

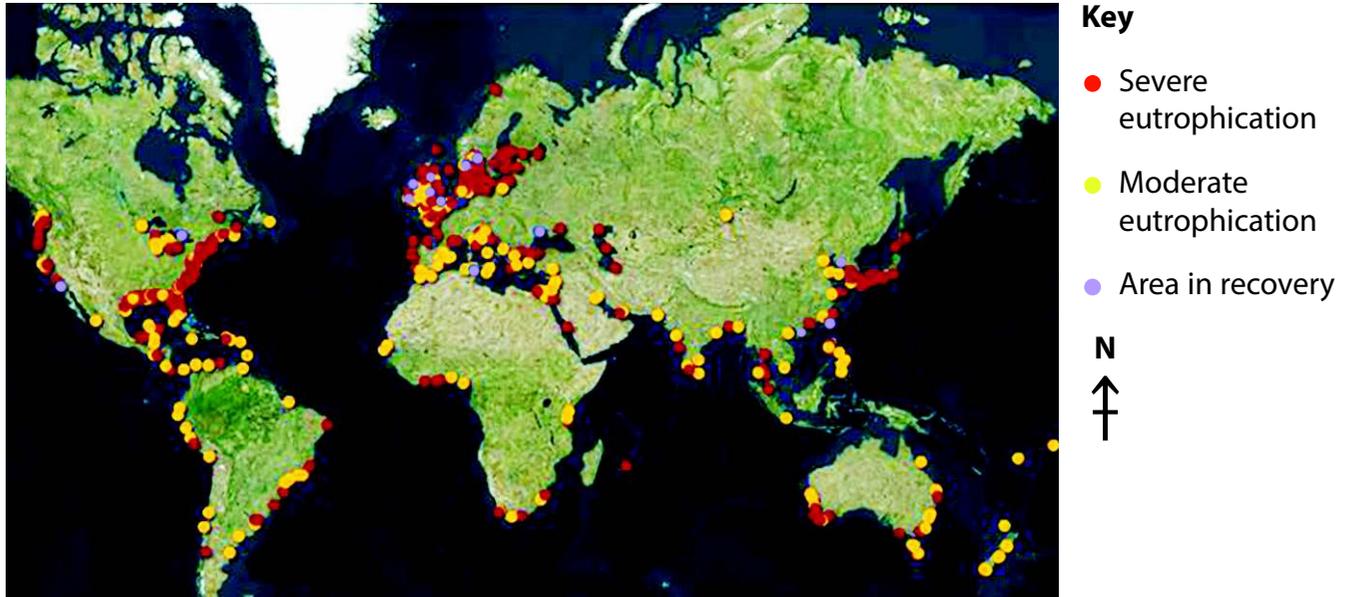**5**   Figure 5 shows a stretch of coastline in southern England.

Figure 5

(a) Study Figure 5.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i)   Identify the coastal feature at X.

(1)

☒   **A**   A beach

☒   **B**   A bar

☒   **C**   A wave-cut platform

☒   **D**   A notch

(ii) Which of these pairs of processes has created the feature at Y?

(1)

☒   **A**   Attrition and longshore drift

☒   **B**   Deposition and swash

☒   **C**   Weathering and backwash

☒   **D**   Abrasion and hydraulic action

S4 5 1 3 7 A 0 1 0 1 8

(b) Outline **one** difference between cliffs on soft rock and hard rock coasts.

(2)

....

....

....

....

(c) Describe **one** possible consequence of climate change on coastal erosion.

(2)

....

....

....

....

*(d) For a named coastline, explain how it is managed.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 5 = 15 marks)

6 Figure 6 shows a view of the Cuckmere Valley in Sussex.
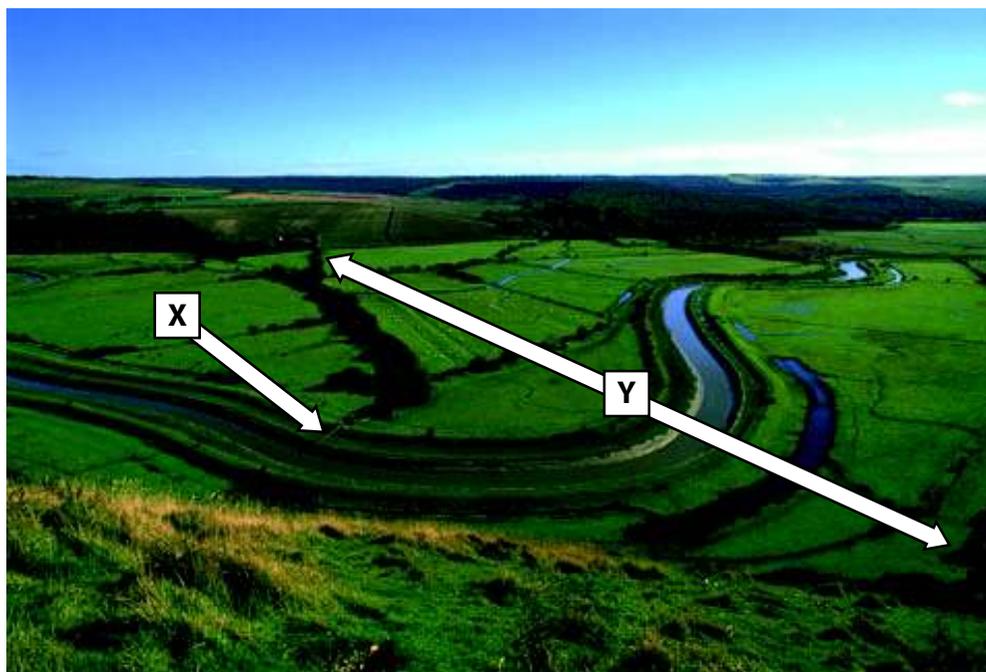
Figure 6

(a) Study Figure 6.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) Identify the river feature at X.

(1)

☒ **A** A meander

☒ **B** An ox-bow lake

☒ **C** A levee

☒ **D** A floodplain

(ii) Which of these pairs of processes best describes how the feature at Y was formed?

(1)

☒ **A** Flooding and meandering

☒ **B** Deposition and hydraulic action

☒ **C** Attrition and abrasion

☒ **D** Abrasion and hydraulic action

(b) Describe **one** human action that might make river flooding more frequent.

(2)

....

....

....

....

(c) Outline **one** method of soft engineering that is used to manage rivers.

(2)

....

....

....

....

*(d) For a named river, explain how channel shape changes along its long profile.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 6 = 15 marks)

TOTAL FOR SECTION B = 15 MARKS

Answer ONE question in this section.

Topic 7: Oceans on the Edge

If you answer Question 7 put a cross in this box ☒ .

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

7 Figure 7 shows the distribution of eutrophication on global coasts.

Key

● Severe eutrophication

● Moderate eutrophication

● Area in recovery

N
↑

Figure 7

(a) Study Figure 7.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) Which of the following continents has the most seriously affected coasts?

(1)

☒ **A** Oceania (Australasia)

☒ **B** South America

☒ **C** Africa

☒ **D** Europe

(ii) Which of the following is correct?

(1)

☒ **A** There are more eutrophication on the west coast of North America than on the east coast.

☒ **B** New Zealand has no coasts affected by eutrophication.

☒ **C** There is only one eutrophication site in the Arctic.

☒ **D** There is no eutrophication in the Carribean.

(iii) Suggest **one** reason for the variations in the pattern of eutrophication.

(2)

....

....

....

....

(b) (i) Outline the characteristics of **food webs**.

(2)

....

....

....

....

*(ii) Using named examples, explain how marine food webs can be disrupted by human actions.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)
(Total for Question 7 = 15 marks)

If you answer Question 8 put a cross in this box ☒ .

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

8   Figure 8 shows Arctic sea ice in 1979 and 2007.
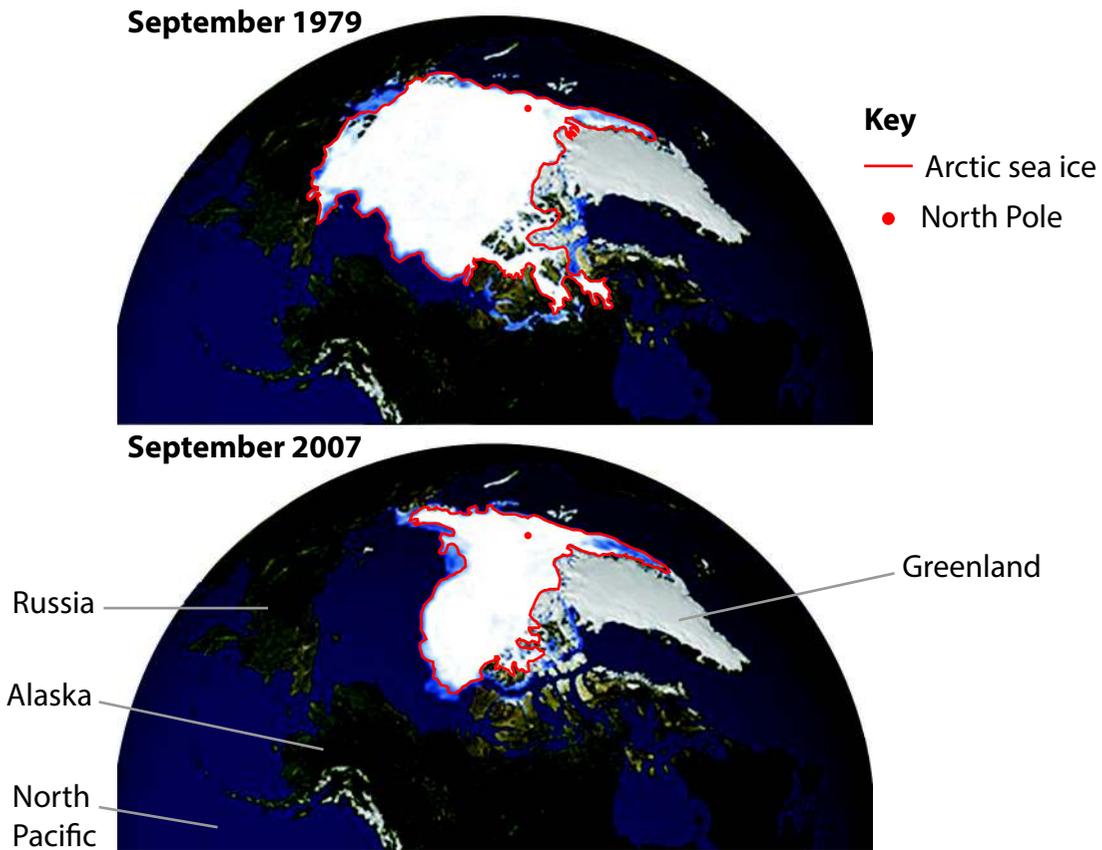
September 1979

Key

— Arctic sea ice

● North Pole

September 2007

Greenland

Russia

Alaska

North Pacific

Figure 8

(a) Study Figure 8.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i)   Which of the following is correct?

(1)

☒ **A** The area covered by sea ice has reduced by about 50%

☒ **B** The area covered by sea ice has reduced by about 10%

☒ **C** The area covered by sea ice has increased by about 10%

☒ **D** The area covered by sea ice has reduced by about 80%

(ii) Which of the following is correct?

(1)

☒ **A** There is less sea ice on Greenland's north coast in 2007 than in 1979.

☒ **B** Alaska has more sea ice in 2007 than in 1979.

☒ **C** There is less sea ice on the north coast of Russia in 2007 than in 1979.

☒ **D** In 1979 there was sea ice in the North Pacific.

(iii) Suggest **one** reason for the changes in Arctic sea ice.

(2)

....

....

....

....

(b) (i) Outline why some environments are considered **fragile**.

(2)

....

....

....

....

*(ii) Using examples, explain how fragile environments in hot arid regions can be affected by human actions.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 8 = 15 marks)

TOTAL FOR SECTION C = 15 MARKS

TOTAL FOR PAPER = 78 MARKS

5GB1F Mark Scheme

Question number	Correct Answer	Reject	Mark
1ai	D = City Railway tracks	All other answers	1

Question number	Correct Answer	Reject	Mark
1aii	D = Hospitals and Emergency Services	All other answers	1

Question number	Correct Answer	Reject	Mark
1b	- An earthquake on the sea/ocean floor/ submarine landslides/ submarine volcanic eruptions/ bolide impact (1) (That create) large waves (1) - That are often magnified as they reach shallower water(1)		2

Question Number	Acceptable Answers	Reject	Mark
1 (c)	- Ocean crust denser than continental (1) detail/data to support(1) - Different types of rock (1)Ocean crust made up of basaltic rocks - continental granitic (or a contrasting rock) (1) - Ocean crust younger (1) detail – example (1) - Ocean crust thinner (1) detail – example (1)	Use of opposites i.e. **oceanic crust is dense, continental is less dense** is worth 1 mark not 2	4 (2+2)

Question Number	Acceptable Answers	Reject	Mark
1 (d)	Can be either developed or developing Allow one mark for any basic idea e.g. and one mark for an extension - Dampers in a roof (1) which reduce building sway (1) - Cross bracing (1) stops floors collapsing (1) - Lightweight roofs (1) so collapse is less hazardous - Use of steel rod foundations (1) to prevent collapse - Cross bracing walls (1) to prevent falling masonry/brickwork	A list of methods with no links to how these help reduce impact. In other words this is a 2x2 question Detail and data about past events with no reference to building design	4

Question number	Correct Answer	Reject	Mark
2ai	A = 100mm lower than...	All other answers	1

Question number	Correct Answer	Reject	Mark
2aii	A = Projections...300mm	All other answers	1

Question number	Correct Answer	Reject	Mark
2b	- Melting ice sheets (1) so more water in ocean(1) - Higher temperatures (1) so water expands (1)	Answers which focus on reasons for global warming with no link to sea-level	2

Question Number	Acceptable Answers	Reject	Mark
2 (c)	A long list of possibles in both categories depending on choice of 'short-term past climate change. Most likely are 'little ice-age' or 'medieval warm period'. Basic mark for describing the change, second for detail. Env. - Farm output fell (1) about 10% of farmers died of famine (1) People - People migrated (1) abandoning mountain regions especially (1)	Answers that describe how climates changed in the past	4 (2+2)

Question Number	Acceptable Answers	Reject	Mark
2 (d)	Three choices for most candidates: - Orbital geometry (1) detail of same (1) - Volcanic eruptions (1) detail of same (1) - Bolide collision (1) detail of same (1) Allow 'tipping-point' idea e.g.; - More snowfall increases planetary albedo (1) reduces radiation absorbed so temperature falls further and more snow falls (1)	Anthropogenic causes A list of causes with no explanation.	4 (2+2)

Question number	Correct Answer	Reject	Mark
3ai	B= Temperate forest	All other answers	1

Question number	Correct Answer	Reject	Mark
3aii	A= Some deserts...	All other answers	1

Question number	Correct Answer	Reject	Mark
3b	• Altitude reduces temperatures (1) so different plants grow (1) example of where this is true (1) – allow explanation of why temperatures reduces (1) • Altitude increases rainfall (1) so different plants grow (1) example of where this is true (1) – allow explanation of why rainfall increases (1)		2 (1+1)

Question Number	Acceptable Answers	Reject	Mark
3(c)	Several possibilities; many will be based on tropical rainforest but allow ANY biome or biosphere in general. • Regulating the atmosphere (1) detail of same e.g. absorbing carbon dioxide (1) • Reducing runoff (1) so reducing erosion/siltation (1) • Part of nutrient cycle (1) providing humus..(1) • Providing habitat (1) thus preserving biodiversity (1) • Attractive/aesthetic landscape (1) a destination for tourists/visitors (1) • Production of vital goods (1) example of same (1)	Lists of goods and services with no links to how this links to 'life support system'	4 (2+2)

Question Number	Acceptable Answers	Reject	Mark
3(d)	Wide variety of possible response but likely to focus on ; • Impacts on fauna (1) details of same (1) • Impacts on flora (1) details of same (1) • Shifting vegetation zones (1) details of same (1) • El Nino(1) detail of impact (1)	Details of why climate is changing	4 (2+2)

Question number	Correct Answer	Reject	Mark
4ai	C = 1984	All other answers	1

Question number	Correct Answer	Reject	Mark
4aii	B= Rainfall is highly variable……	All other answers	1

Question	Correct Answers	Reject	Mark

4b	Depends on chosen example of intermediate technology – expect basic idea naming method with 2nd mark for detail/data extension • Rainwater harvesting (1) details of same • Tube wells (1) details of same (1)	Anything other than intermediate technology	2

Question Number	Correct Answers	Reject	Mark
4 (c)	Wide range of possibilities. Expect basic identification of cause for 1 mark and extension through detail and or data for the 2nd mark. For example; • Intensive farming using fertilisers (1) details of same – runoff of nitrates (1) • Industrialisation so more factories (1) leading to industrial effluent – detail of same (1) • Deindustrialisation ..(1) as above but expect details of improvement	Focus on water **quantity**	4

Question Number	Acceptable Answers	Mark
4 (d)	Four possible processes to identify. Evaporation, condensation to form clouds and then precipitation and run-off back to ocean. Allow to 4 if processes identified in the correct order. If any one process missed 4th mark may come from any further detail – this can come from point about process – cooling air as it rises (1) or similar.	4

Question number	Correct Answer	Reject	Mark
5ai	C = A wave-cut platform	All other answers	1

Question number	Correct Answer	Reject	Mark
5aii	D = Abrasion and hydraulic action	All other answers	1

Question Number	Acceptable Answers	Reject	Mark
5b	• Different heights (1) example of same (1) or reason for same (1) • Different angle (1) example of same (1) or reason for same (1) • Different rate of erosion (1) or reason for same (1)	Two or more differences	2

Question number	Correct Answer	Mark

5c	• Higher sea-level (1) increases rate of cliff/beach erosion (1) • Increased storminess (1) increases rate of cliff/beach erosion • Differences in river discharge (1) changing amount of sediment delivered or similar (1)	2

Question Number	Indicative content
5 (d) QWC i,ii,iii	Stress here is on explanation so links need to be established between the management policy and the reasons why it is (or isn't) appropriate; Likely are; • Soft engineering • Hard engineering • Holistic integrated management schemes • A mixture

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response identifies management system but may not be clear. Limited details on what is actually done. No comment on the appropriateness of the choice. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	Response identifies management system with a little descriptive detail of how it is carried out. A statement on the appropriateness of the choice.. The response uses a few examples with some explicit detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	Response describes management system in some detail. Very clear on what is actually done. Clear explanation as to the appropriateness of choice will receive top level 3 but a clear detailed explanation of the management should also receive the top band. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question	Correct Answer	Reject	Mark

number			
6ai	C = A levee	All other answers	1

Question number	Correct Answer	Reject	Mark
6aii	A = Flooding and meandering	All other answers	1

Question Number	Correct Answers	Reject	Mark
6b	Many possibilities but expect; • Deforestation (1) so less water taken up by trees (1) • Urbanisation (1) so more run-off (1) • River channelization (1) so water displaced downstream (1) • Climate change (1) so higher rainfall (1)	Answers that address why flooding might be more damaging as in – building on the floodplains	2

Question number	Correct Answer	Reject	Mark
6c	Depends on method but expect basic identification of method (1) explanation of how it reduces flooding (1) thus; • Afforestation (1) which absorbs water (1) • Managed flooding (1) using wash-plains that allow rivers to flood (1)	Any hard engineering examples	2

Question Number	Indicative content
6 (d) QWC i,ii,iii	• Expect comments about depth, width and possibly shape through wetted perimeter • Allow gradient i.e. long-profile • Also allow explanations of meandering • Generally channels become deeper and wider in a downstream direction • Gradient reduces • However this is a high level of generalisation so allow variations • Explanation involves increasing efficiency of channel through erosion and deposition • Increasing discharge is key control

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response attempts to describe channel shape but with little accuracy or detail; perhaps just one variable discussed. Understanding of process is limited to one simple statement. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	The response attempts to describe channel shape with a range of variables, but not in great detail. The response explains at least variable with some detail of process although not clearly linked to channel changes. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	The response shows good understanding of changes in channel shape

		downstream. Explanation is clear and well-linked to the downstream changes. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
7ai	D = Europe	All other answers	1

Question number	Correct Answer	Reject	Mark
7aii	C= There is only one eutrophication site in the Arctic.	All other answers	1

Question Number	Acceptable Answers	Reject	Mark
7b	Suggest one reason so expect basic point (1) and extension (1) • There are more nutrient(s) added to the water(1) any legitimate cause - e.g. more intensive agriculture, more industrial pollution, more tourism (1)	Explanations of the process itself beyond additional nutrients	2

Question number	Correct Answer	Acceptable Answers	Mark
7bi	Outline one so expect basic idea (1) plus extension through detail (1) Basic idea- A set of relationships between living creatures making them	Allow 'More complex than a simple food-chain' for basic point (1)	2

	interdependent (1) example of a food web (1) or development as in - usually with carnivores at the top of food chain (1)		

Question Number	Indicative content		
7 b ii QWC i,ii,iii	Reference could be made to a number of marine food webs and many human actions at a range of scales. Expect these disruptions to feature; - Marine food webs may be open ocean or based on ......mangroves and coral reefs - Processes of disruption are likely to include; - Overfishing - Eutrophication - Siltation - Climate change - Bleaching - Species migration - Locational detail may include specific case-study material at a range of scales but likely to focus on local scale illustrative case-study material		

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	The response describes one disruption but with limited detail and lacking a link to relevant processes. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	The response explains how at least one human action impacts on the oceans but without much development of the processes involved. The response uses at least one example with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	The response explains how various human actions have disrupted at least one marine food web – clear focus on processes and good linkages to the impacts fo these processes. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of

		the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
8ai	A =..reduced by about 50%	All other answers	1

Question number	Correct Answer	Reject	Mark
8aii	C = There is less sea ice on the north coast…	All other answers	1

Question Number	Acceptable Answers	Reject	Mark
8 (a) (iii)	Suggest one reason so expect basic point (1) and extension (1) • Global warming (1) leading to melting (1) detail of reason for global warming (1)	Answers that address consequences of ice melt	2

Question number	Correct Answer	Acceptable Answers	Mark
8 (b) (i)	Outline one so expect basic idea (1) plus extension through detail (1) Basis idea is that – small changes in processes cause substantial changes in the 'system' (1) example of same (1) or development through illustration of process change (1)	Allow 'easily damaged' for the basic point (1)	2

Question Number	Indicative content
8 (b) (ii) QWC i,ii,iii	There will be a range of hot-arid environments chosen but likely to include the Sahel and (central) Australia. • Impacts are likely to include desertification, species loss and population decline • Processes may include; 1. Climate change at a global level 2. Climate change at a regional level 3. Local actions including mining.. 4. …overgrazing 5. …over-extraction of water • Links between processes and impacts should cover fragility of environments

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	The response describes one impact on fragile environment but with limited detail and lacking a link to relevant processes. Examples are not used beyond named places. Limited structure and basic use of

		geographical terminology.
Level 2	3-4	The response explains how at least one human action impacts on fragile environments with some detail of the process. The response uses at least one example with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	The response explains how various human actions have impacted on the chosen fragile environment(s) – clear focus on processes and good linkages to the impacts of these processes. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

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.
- In Section A, answer **all** questions.
- In Section B, answer **either** question 5 **or** 6.
- In Section C, answer **either** question 7 **or** 8.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 78.
- 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.
- Check your answers if you have time at the end.

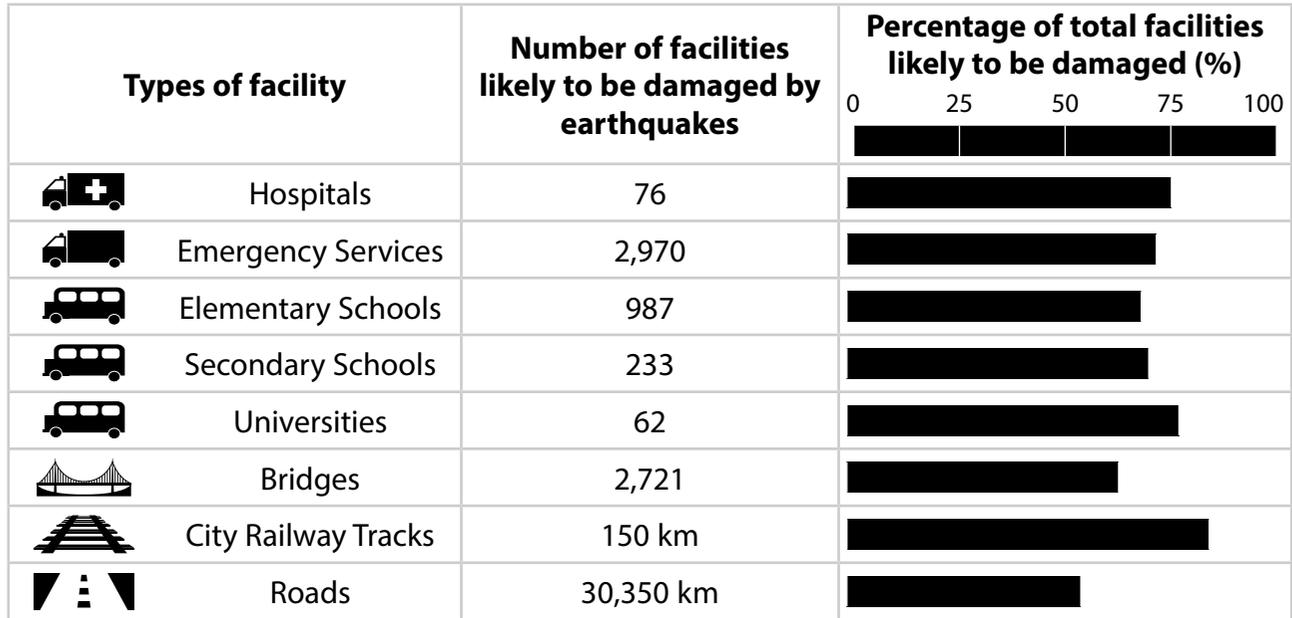*Turn over* ▶

S45138A0118

PEARSON

SECTION A: INTRODUCTION TO DYNAMIC PLANET

Answer ALL questions in this section.

Topic 1: Restless Earth

1 Figure 1 shows the possible impact of earthquakes on facilities in the San Francisco area.

Types of facility	Number of facilities likely to be damaged by earthquakes	Percentage of total facilities likely to be damaged (%) 0 25 50 75 100
⬛ Hospitals	76	
⬛ Emergency Services	2,970	
⬛ Elementary Schools	987	
⬛ Secondary Schools	233	
⬛ Universities	62	
⬛ Bridges	2,721	
⬛ City Railway Tracks	150 km	
⬛ Roads	30,350 km	

Figure 1

(a) Study Figure 1.

Describe the possible impact of earthquakes on facilities in the San Francisco area.

(2)

....

....

....

....

(b) Explain how building design can help to reduce the impact of earthquakes.

(4)

....

....

....

....

....

....

....

....

(c) Examine why the characteristics of volcanoes vary.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

....
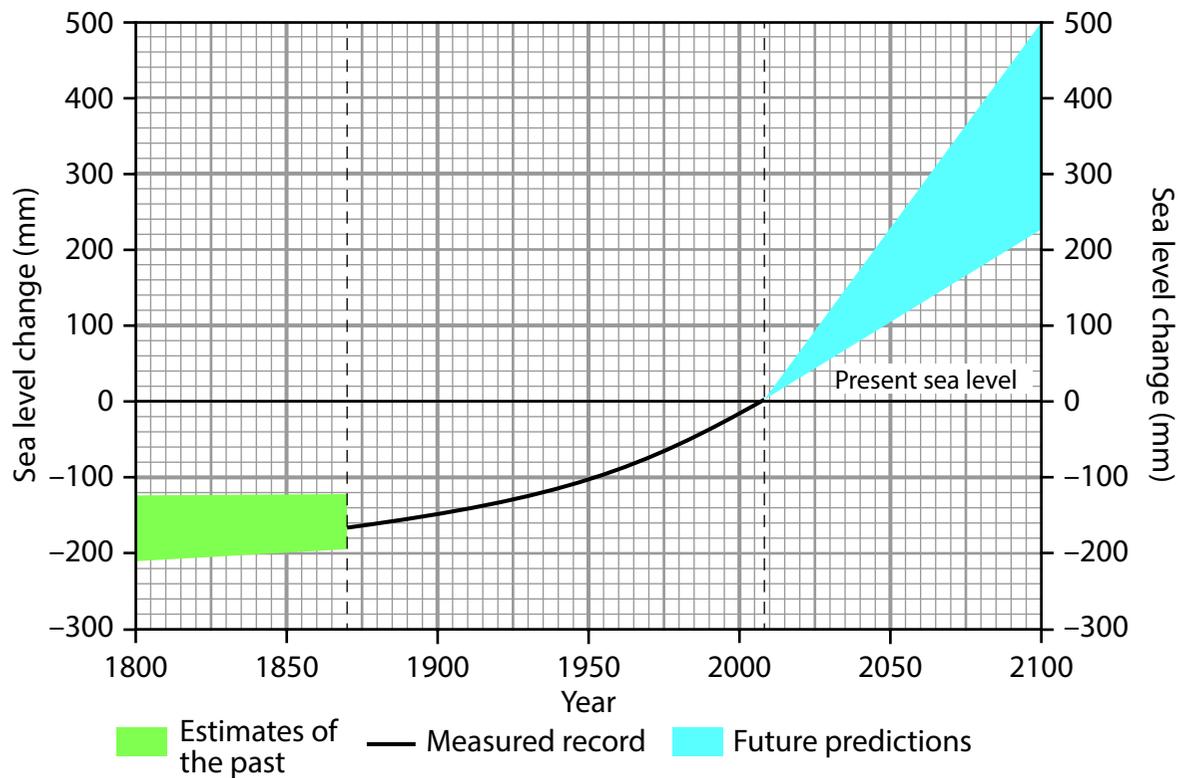
(Total for Question 1 = 12 marks)

Topic 2: Changing Climate

2 Figure 2 shows the history of global sea level until 2008 and a range of predictions about future changes.

Figure 2

(a) Study Figure 2.

Describe the possible predicted changes in sea level.

(2)

....

....

....

....

(b) Explain how natural events can cause climate change.

(4)

....

....

....

....

....

....

....

....

(c) For a named **developing** country, explain how climate change might affect its economy.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 2 = 12 marks)

3 Figure 3 shows the temperature and precipitation conditions for selected biomes.
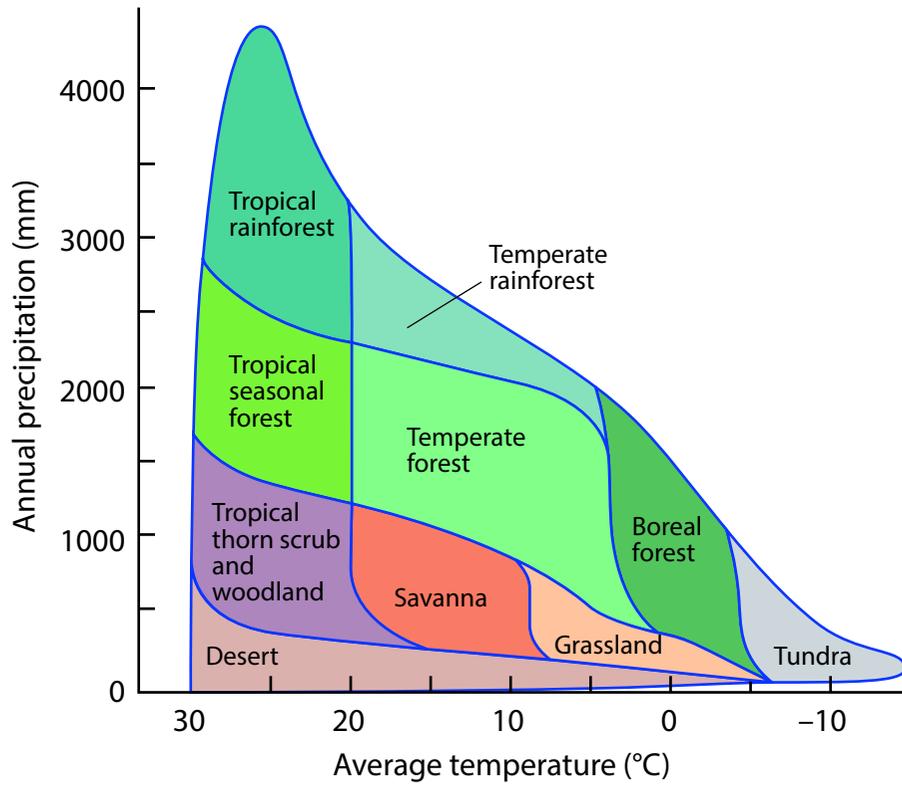
Figure 3

(a) Study Figure 3.

Describe the range of climatic conditions associated with tropical rainforests.

(2)

....

....

....

....

(b) Explain how climate change can lead to degradation of the biosphere.

(4)

....

....

....

....

....

....

....

....

(c) Using examples, explain how management measures can help to conserve the biosphere.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 3 = 12 marks)

Topic 4: Water World

4 Figure 4 shows annual rainfall for Lodwar in north-west Kenya between 1950 and 2008.
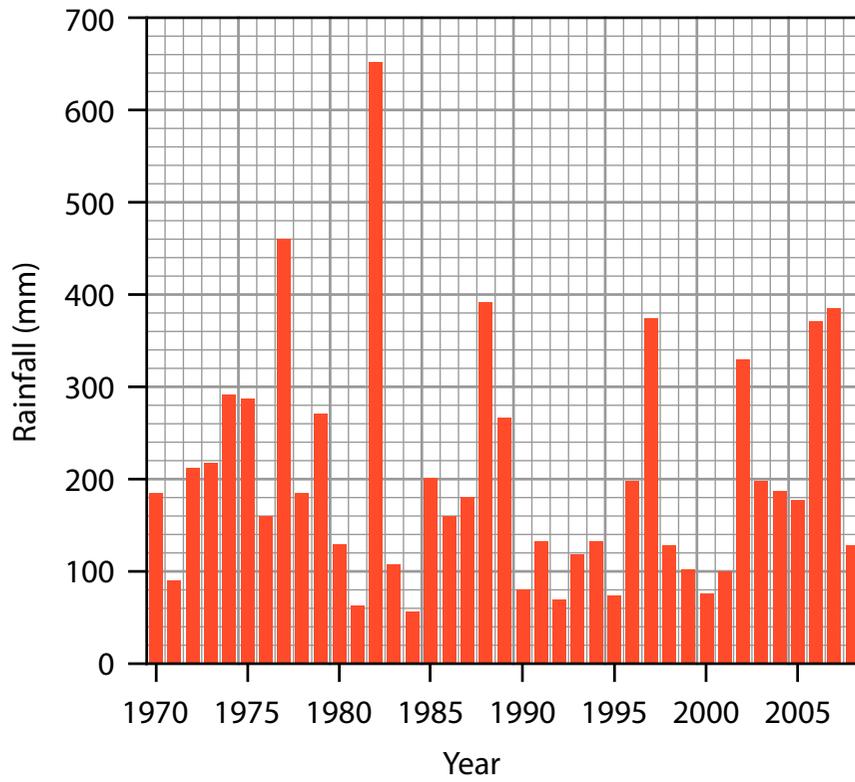
Figure 4

(a) Study Figure 4.

Describe the variations in annual rainfall.

(2)

....

....

....

....

(b) Describe how water is transferred from the oceans to the atmosphere and back again.

(4)

....

....

....

....

....

....

....

(c) Using examples, examine the costs and benefits of large-scale water management schemes.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 48 MARKS

Answer ONE question in this section.

Topic 5: Coastal Change and Conflict

If you answer Question 5 put a cross in this box ☒ .

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

5 Figure 5 shows a stretch of coastline in southern England.

Figure 5

(a) Study Figure 5.

(i) Describe how a wave-cut platform is formed.

(2)

....

....

....

....

(ii) Outline **one** economic consequence of coastal erosion

(2)

....

....

....

....

*(b) Examine the differences between concordant and discordant coasts.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 5 = 15 marks)

If you answer Question 6 put a cross in this box ☒ .

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

6   Figure 6 shows a view of the Cuckmere Valley in Sussex.

Figure 6

(a) Study Figure 6.

(i)   Describe how a flood plain is formed.

(2)

....

....

....

....

(ii) Outline **one** economic consequence of river flooding.

(2)

....

....

....

....

*(b) Examine the landform contrasts between the upper and lower courses of rivers.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 6 = 15 marks)

TOTAL FOR SECTION B = 15 MARKS

Answer ONE question in this section.

Topic 7: Oceans on the Edge

If you answer Question 7 put a cross in this box ☒ .

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

7 Figure 7 shows the distribution of eutrophication on global coasts.

Key

● Severe eutrophication

● Moderate eutrophication

● Area in recovery

N
↑
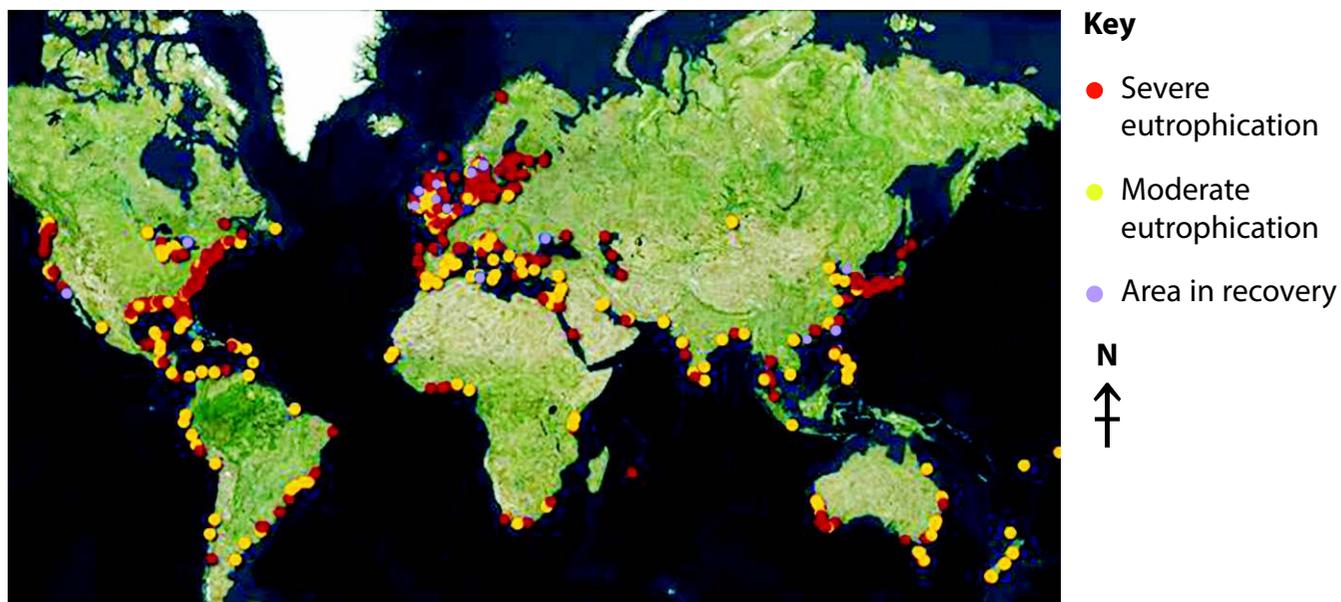
Figure 7

(a) Study Figure 7.

   (i) Describe the global pattern of eutrophication.

(2)

....

....

....

....

   (ii) Outline the process of eutrophication.

(2)

....

....

....

....

*(b) For a named marine ecosystem, examine why it is under increasing pressure.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 7 = 15 marks)

If you answer Question 8 put a cross in this box ☒ .

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

8   Figure 8 shows Arctic sea ice in 1979 and 2007.

September 1979

Key
— Arctic sea ice
● North Pole

September 2007

Russia

Alaska

North
Pacific

Greenland
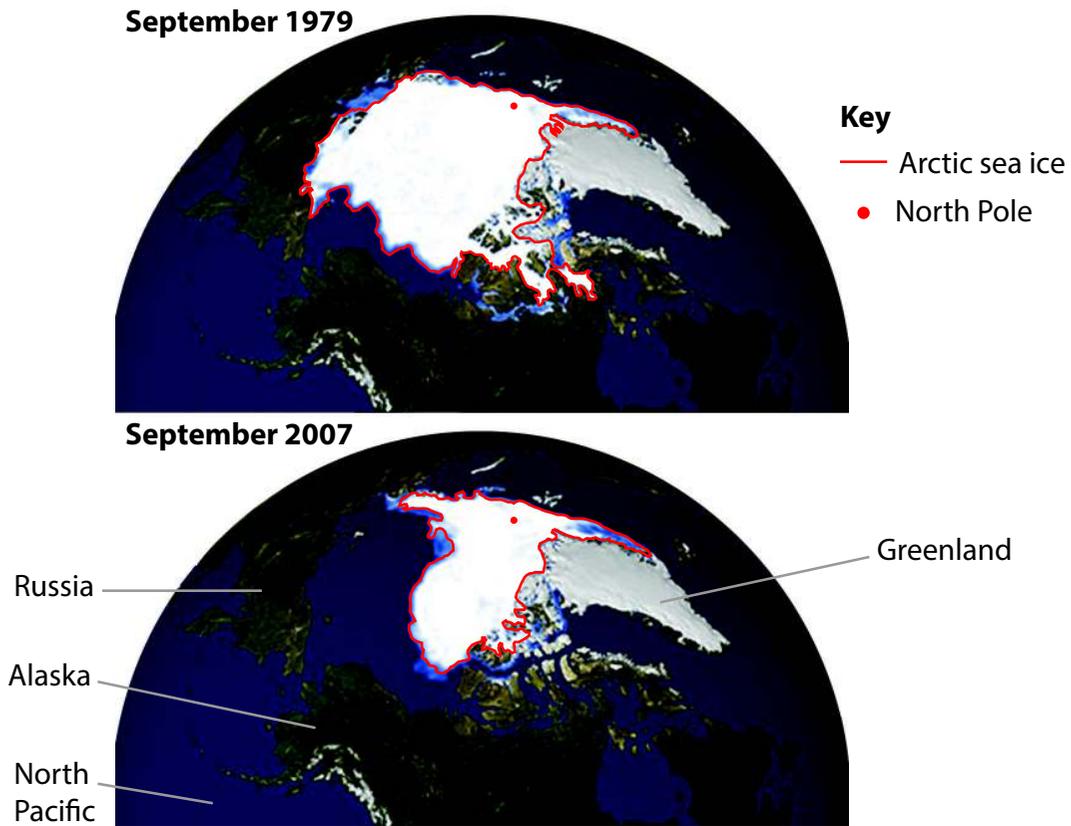
Figure 8

(a) Study Figure 8.

(i)   Describe the changes in the pattern of sea ice.

(2)

....

....

....

....

S 4 5 1 3 8 A 0 1 6 1 8

(ii) Explain **one** other impact of climate change on the environment of polar regions.

(2)

....

....

....

....

*(b) Using named examples, examine the culture and uniqueness of peoples living in extreme environments.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 8 = 15 marks)

TOTAL FOR SECTION C = 15 MARKS

TOTAL FOR PAPER = 78 MARKS

BLANK PAGE

5GB1H Mark Scheme

Question number	Correct Answer	Reject	Mark
1a	Eight different categories of service can be discussed; Describe the possible impact…so expect two points. Correct identification of two or more of above (1) Number of facilities damaged (1) percentage of facilities damaged (1)	All other answers	2

Question Number	Correct Answers	Reject	Mark
1 (b)	Can be either developed or developing Allow one mark for any basic idea e.g. and one mark for an extension • Dampers in a roof (1) which reduce building sway (1) • Cros- bracing (1) stops floors collapsing (1) • Lightweight roofs (1) so collapse is less hazardous • Use of steel rod foundations (1) to prevent collapse • Cross-bracing walls (1) to prevent falling masonry/brickwork	A list of methods with no links to how these help reduce impact. In other words this is a 2x2 question Detail and data about past events with no reference to building design	4 (2+2)

Question Number	Indicative content
1 (c)	Likely to concentrate on contrasts between shield volcanoes and composites or, perhaps andesitic and basaltic; • Different types of magma with details of same in terms of fluidity linked to shape – slope angle/size • Different types of magma with details of same in terms of fluidity linked to explosivity • Different type of plate boundary linked to detail of volcano type – fissure/cone etc.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response identifies at least one type of volcano. Links to characteristics are weak but some identification of features. Explanation is simply stated but without exploration of processes. Examples are not used beyond named places.
Level 2	3-4	Response identifies at least two types of volcano. Links to characteristics are well made with some identification of features. Explanation is partial but with some explicit exploration of processes. The response uses a few examples with some explicit detail.
Level 3	5-6	Response identifies several types of volcano. Links to characteristics are strong with good identification of features. Explanation is detailed with explicit exploration of processes. Examples are used with some detailed description.

Question number	Correct Answer	Reject	Mark
2(a)	It will rise (1) wide variation in predicted rise (1) data to support either point (1)	All explanatory points	2

Question Number	Correct Answers	Reject	Mark
2 (b)	Three choices for most candidates: • Orbital geometry (1) detail of same (1) • Volcanic eruptions (1) detail of same (1) • Bolide collision (1) detail of same (1) Allow 'tipping-point' idea e.g.; • More snowfall increases planetary albedo (1) reduces radiation absorbed so temperature falls further and more snow falls (1)	Anthropogenic causes A list of causes with no explanation.	4 (2+2)

Question Number	Indicative content
2 (c)	Depends on chosen case-study but likely to have similar range of ideas to include;:impacts on agriculture affecting yields and farming patterns etc. • loss of productive land in deltaic, estuarine and other coastal regions • costs of defences against sea-level rise • impact on industry through shortage of resources • impacts of population movement that, in turn, impact on the economy – rapid urban growth – dependency on aid etc.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response identifies at least one impact. Links to economy are weak but some link to climate change implicit. Explanation is simply stated but without exploration of processes. Examples are not used beyond named places.
Level 2	3-4	Response identifies at least one explicitly economic impact. Links to climate change explicit. Explanation is clearly stated with limited exploration of processes. The response uses a few examples with some explicit detail.
Level 3	5-6	Response identifies several economic impacts. Links to climate change are strong with good identification of features. Explanation is detailed with explicit exploration of impacts. Examples are used with some detailed description.

Question number	Correct Answer	Reject	Mark
3 (a)	Hot (1) data to explore range 20°-28° C (1) Wet (1) 225 cm (or equivalent) – 450 cm (or equivalent) (1)	All explanations	2

Question Number	Correct Answers	Reject	Mark
3(b)	Expect basic idea/description of degradation e.g. coral reefs disappearing (1) with explanatory link to climate change i.e. warmer ocean water (1) Or process based answer e.g. climate change is rapid in some areas (1) and plants cannot adapt fast enough so species will decline (1) Might offer 2 ideas, both developed or perhaps 3 with only one developed.	Lists of goods and services with no links to how this links to 'life support system'	4 (1+1) + (1+1) Or (1+1) + 1 + 1

Question Number	Indicative content
3 (c)	A wide range of possible management measures will be offered at a range of scales. • Global level e.g. Ramsar • National level – National Parks • Local level – rainforest reserve Emphasis is likely to be on tropical rainforests but expect others. Higher level answers should address the relative success of these conservation measures.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response identifies at least one management measure. Links to conservation are weak. Explanation is simply stated but without exploration of processes. Examples are not used beyond named places.
Level 2	3-4	Response identifies and adds details about at least one management measure. Links to conservation are explicit. Explanation is clearly stated with some limited exploration of processes. The response uses a few examples with some explicit detail.
Level 3	5-6	Response identifies several management measures. Links to conservation are strong with good identification of features. Explanation is detailed with explicit exploration of processes that link management to conservation. Examples are used with some detailed description.

Question number	Correct Answer	Reject	Mark
4a	It is highly varied (1) no obvious pattern (1) data to support either point (1)	All explanations	2

Question Number	Correct Answers	Mark
4 (b)	Four possible processes to identify. Evaporation, condensation to form clouds and then precipitation and run-off back to ocean. Allow to 4 if processes identified in the correct order. If any one process missed 4th mark may come from any further detail – this can come from point about process – cooling air as it rises (1) or similar.	4

Question Number	Indicative content

4 (c)	Many possible examples of large-scale water management schemes but expect San Antonio, Three Gorges. Costs are likely to include:
	    • displacement of people
	    • impacts on water quality and quantity –eutrophication etc
	    • costs
	    • lack of fulfilment of initial targets
	Benefits;
	    • production of power and political implications of same – energy independence
	    • creation of employment
	Examination encourages some assessment of the balance of the costs and benefits
	Are marks limited if only costs OR benefits are discussed? Question implies that this will be the case. Examiners need direction. Some subjects would limit marks to say 5

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response identifies at least one impact, probably a cost. Links to any particular scheme is limited. Explanation is simply stated but without exploration of processes that make the impact negative (or positive). Examples are not used beyond named places.
Level 2	3-4	Response identifies and adds a few details about at least two impacts, one of each at least. Links to particular schemes are explicit. Explanation is clearly stated with some limited exploration of processes that make the impacts negative and positive. The response uses a few examples with some explicit detail.
Level 3	5-6	Response identifies and has good details about more than two impacts, both costs and benefits. Links to particular schemes are strong with good identification of features. Explanation is detailed with

		explicit exploration of processes that make the impacts negative and positive. Examples are used with some detailed description.

Question number	Correct Answer	Reject	Mark
5ai	Cliffs are eroded (1)) so they retreat (1) leaving a platform (1) which will be further eroded and weathered (1) allow detail of process(es) (1)	All other answers	2

Question Number	Correct Answers	Reject	Mark
5 a ii	Outline so expect one basic point (1) and an extension through more detail or data (1) • Financial losses through (1) costs of coastal protection schemes (1) or insurance of property (1) or loss of property (1) data/detail of that loss (1)	Points that do not refer to costs – no obvious economic link.	2

Question Number	Indicative content
*5 (b) QWC I,ii,iii	Stress here is on explanation so links need to be established between the geography of concordant and discordant coasts and clear links between their form and the processes that create them. These should include: • alignment of rocks • headlands and bays on discordant coasts reflecting geology • rates of erosion varied along that coast • different alignment of concordant coasts Answers may well include case-study comparisons, perhaps from Dorset

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-3	Response identifies one type of coast but may not be clear. Limited details on its form. Geology that explains basic difference not explored. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	4-6	Response identifies both types of coastline. Some reference to differences in form. Both geology and processes addressed but not explicitly linked to form. The response uses a few examples with some explicit detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	7-8	Response describes both types of coastline in some detail. Explicit comparison of differences in form. Both geology and processes addressed explicitly linked to form. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.

SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
6ai	Rivers meander (1) eroding the valley sides (1) leaving a trail of (point-bar) deposits (1) flooding adds material to that surface (1)	All other answers	2

Question number	Correct Answer	Reject	Mark
6aii	Outline so expect one basic point (1) and an extension through more detail or data (1) Financial losses through (1) loss of agricultural income (1) damage to property (1) ..or industry (1) detail to support (1)	Points that do not refer to costs – no obvious economic link.	2

Question Number	Indicative content
*6 (b) QWC I,ii,iii	Given the broadness of the categories allow any sensible comparison between upper and lower courses. Expect comments about waterfalls, gorges, interlocking spurs, meanders, oxbow lakes, floodplains and levees. Allow comments about channel characteristics to include width and depth. Examine requires description and explanation and some assessment; • Changes in processes downstream • River more powerful as discharge increases • Cutting laterally as well as vertically • Sub-aerial processes also significant in valley width, gradient

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response attempts to describe one or two landforms. Understanding of influence of processes is limited to one simple statement. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	The response attempts to describe a range of landforms, but not in great detail. The response explains at least one with some detail of

Level 3	5-6	processes although not clearly linked to the landform. Some structure and clearly communicated but with limited use of geographical terminology.
		The response shows good understanding of changes in landforms downstream. Explanation is clear and well-linked to the contrasts between upper and lower course. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
7ai	It is uneven (1) distinctive clusters (1) areas of absence (1) details/data to support any of these ideas (1)	Explanatory points	2

Question number	Correct Answer	Reject	Mark
7aii	Rising levels of nutrients in the water (1) encourage algal growth (1) death and decay of this algae (1) which removes oxygen from water (1)	All other answers	2

Question Number	Indicative content
7 (b) QWC i,ii,iii	Marine ecosystem is likely to be either coral reefs or mangrove swamps but allow all legitimate marine ecosystems. Processes that increase 'pressure' are likely to include: 1. Overfishing 2. Eutrophication 3. Siltation 4. Climate change 5. Bleaching

6. Species migration

Locational detail may include specific case-study material at a range of scales but likely to focus on local scale illustrative case-study material .

Explanation of 'why' may trace back reasons to basic causes of. as in, for example:

- explanation of growth of tourism and reasons why damage is not controlled

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	The response describes one pressure but with limited detail and lacking a link to relevant ecosystem. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	The response explains how at least one pressure impacts on the named ecosystem but without much development of the processes involved. The response uses at least one example with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	The response explains how various processes have increased pressure on the named ecosystem – clear focus on processes and good linkages to the impacts of these processes. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
8ai	It has shrunk (1) especially on Siberian (or any recognisable equivalent) coast (1) also in northern Canada (1) shrunk by about 50% (1)	Explanatory points	2

Question number	Correct Answer	Reject	Mark
8aii	Environment is focus so allow any **one** of following Impact on biosphere (1) detail of same (1) Impact on permafrost (1) detail of same (1)	All other answers	2

Question Number	Indicative content
8 (b) QWC i,ii,iii	Likely to cover peoples of both arid and polar regions but allow a single case-study approach. Examine Examination? involves description of the culture, explanation of its uniqueness (why is it different?) and some assessment which might involve a comment that is comparative or a reflection on pressure/change that threatens the 'uniqueness'. Points that might be covered include: • adaptability • ability to survive in harsh conditions • relationship with the environment • understanding of that environment • particular feature of the culture

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	The response describes one aspect of the culture of a community in extreme environments. No explanation in terms of links to relevant processes. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	The response explains how at least one community has unique characteristics with some details. The response uses at least two examples with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	The response explains how at least two communities have unique characteristics – clear focus on uniqueness and good linkages to the culture. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good

		range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Pearson
Edexcel GCSE

Centre Number

Candidate Number

Geography B
Unit 2: People and Planet

Foundation Tier

Sample Assessment Material
Time: 1 hour 15 minutes

Paper Reference
5GB2F/01

You do not need any other materials.

Total Marks

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.
- In Section A, answer **all** questions.
- In Section B, answer **either** question 5 **or** 6.
- In Section C, answer **either** question 7 **or** 8.
- Answer the questions in the spaces provided
  – *there may be more space than you need.*

Information

- The total mark for this paper is 78.
- 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.
- Check your answers if you have time at the end.

Turn over ▶

S 4 5 1 3 2 A 0 1 2 4

PEARSON

SECTION A: INTRODUCTION TO PEOPLE AND THE PLANET

Answer ALL questions in this section.

Topic 1: Population Dynamics

1 Figure 1 shows population pyramids for Ethiopia and Japan in 2012.
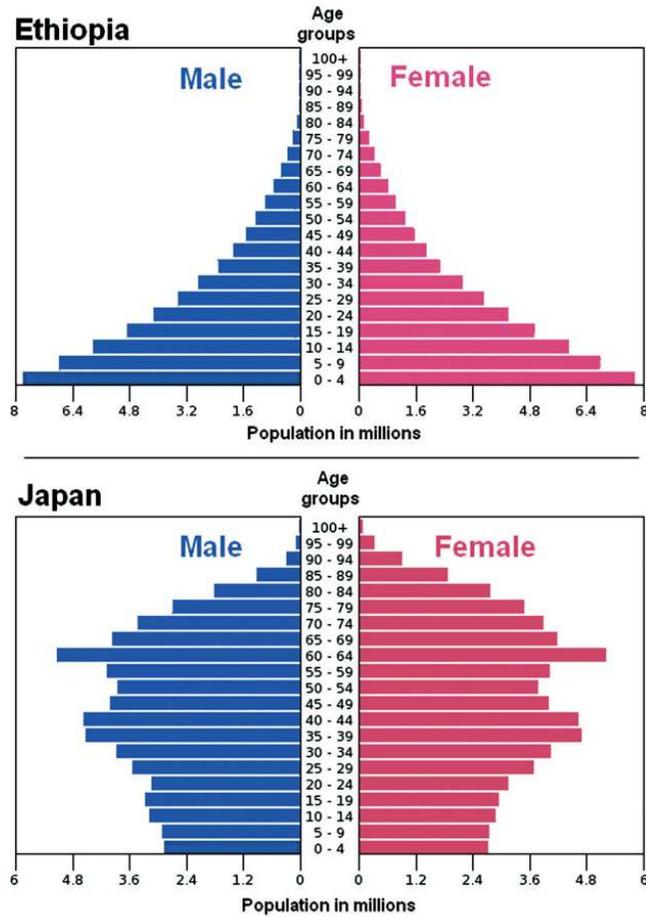
Figure 1

(a) Study Figure 1.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) Which of these has the highest number of people in the 85–89 age group?

(1)

⊠ **A** Ethiopia: male

⊠ **B** Ethiopia: female

⊠ **C** Japan: male

⊠ **D** Japan: female

(ii) What is likely to happen to Ethiopia's total population in the next 20 years?

(1)

☒ **A** It will stay the same.

☒ **B** It will grow slowly.

☒ **C** It will grow rapidly.

☒ **D** It will fall.

(b) Describe what is meant by an **ageing population**.

(2)

....

....

....

....

(c) Japan faces social and economic challenges because of the shape of its population pyramid.

Outline **one** social and **one** economic challenge it faces.

(4)

Social challenge

....

....

....

....

Economic challenge

....

....

....

....

S 4 5 1 3 2 A 0 3 2 4

(d) Explain why it is difficult to predict the future population size of countries.

(4)

....

....

....

....

....

....

....

....

(Total for Question 1 = 12 marks)

Topic 2: Consuming Resources

2 Figure 2 shows a web page from 'Recycle Now' the official UK recycling campaign.

(Source: http://www.recyclenow.com/what_can_i_do_today/index.html)

Figure 2

(a) Study Figure 2.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) What is the main purpose of this web page?

(1)

    ☒ **A** To encourage people to insulate their homes.

    ☒ **B** To encourage people to buy recycled products.

    ☒ **C** To make money from recycling.

    ☒ **D** To encourage people to recycle.

(ii) Identify the materials which are often recycled, but which are **not** referred to on Figure 2.

(1)

☒ **A** Paper and cardboard

☒ **B** Plastic and plastic bottles

☒ **C** Home composting

☒ **D** Aerosol cans

(b) State **two** reasons why some people **do not** recycle their household waste.

(2)

1 ....

2 ....

(c) Other than recycling, describe **two** ways in which resource consumption can be made more sustainable.

(4)

1 ....

....

2 ....

....

(d) Explain the relationship between population and food supply outlined by Malthus.

(4)

....

....

....

....

....

....

....

....

....

(Total for Question 2 = 12 marks)

Topic 3: Globalisation

3 Figure 3 shows the global distribution of Toyota's factories and research and development sites.
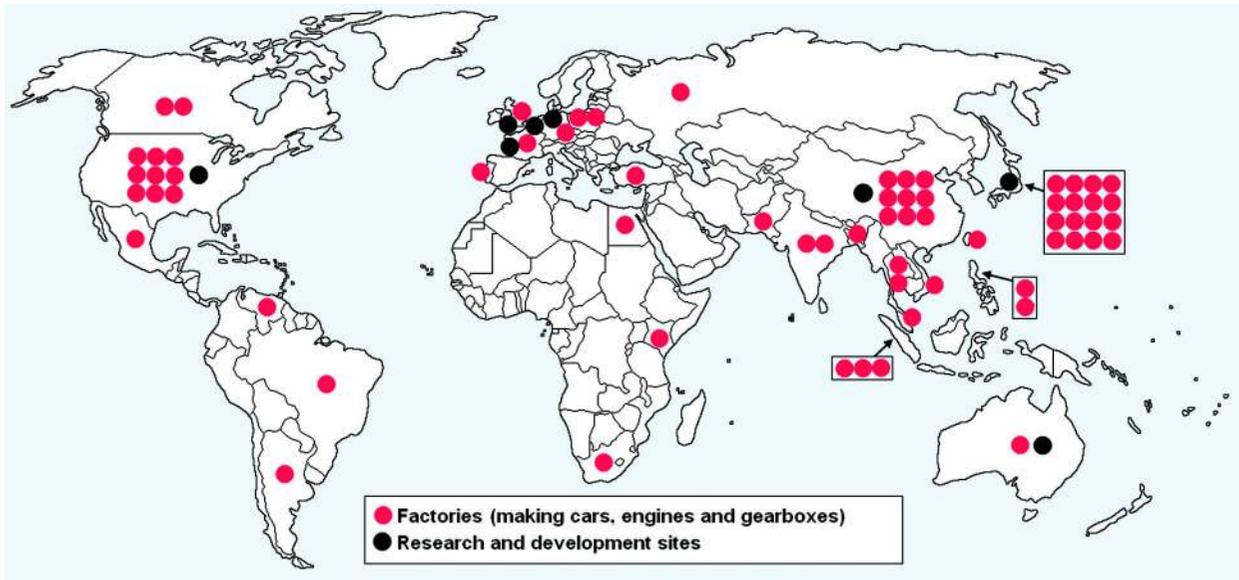
(Source: Toyota corporate website)

Figure 3

(a) Study Figure 3.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) Which of the following countries has the most Toyota factories?

(1)

☒ **A** USA

☒ **B** China

☒ **C** Japan

☒ **D** Australia

(ii) Which of the following has **no** Toyota research and development site?

(1)

☒ **A** Africa

☒ **B** Asia

☒ **C** North America

☒ **D** Europe

(b) Toyota opened a car factory in Derby in the UK in 1992. Suggest **two** benefits this may have brought to local people.

(2)

1 ....

....

2 ....

....

(c) Suggest reasons why:

(4)

Toyota's research and development sites are mostly in **developed** countries.

....

....

....

....

Toyota locates some factories in **developing** countries.

....

....

....

....

(d) Describe the **negative** impacts of globalisation on people in the **developing** world.

(4)

....

....

....

....

....

....

....

(Total for Question 3 = 12 marks)

Topic 4: Development Dilemmas

4 Figure 4 shows information about Zambia.

1. A landlocked country (with no coastline)

2. 14% of adults have HIV / AIDS

3. The population is growing by 3% each year

Figure 4

(a) Study Figure 4.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

Which of the following best describes Zambia?

(1)

☒ **A** A developed country in Sub-Saharan Africa.

☒ **B** A developing country in Sub-Saharan Africa.

☒ **C** A developed country in North Africa.

☒ **D** A developing country in North Africa.

S45132A01024

S 4 5 1 3 2 A 0 1 0 2 4

(b) What is meant by the term **global development gap**?

(1)

☒ **A** The income gap between men and women.

☒ **B** The income gap between urban and rural areas.

☒ **C** The income gap between adults and children.

☒ **D** The income gap between the most and least developed countries.

(c) Other than income, state **two** ways that the level of development of a country could be measured.

(2)

1 ....

....

2 ....

....

(d) Choose **two** of the issues on Figure 4 and suggest how each could be a barrier to further development.

(4)

Choice 1

....

....

Choice 2

....

....

(e) Explain why levels of development are often very low in **rural** areas in **developing** countries.

(4)

....

....

....

....

....

....

....

....

(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 48 MARKS

5 Figure 5 shows trends in working from home in England and Wales, 1997 to 2011.
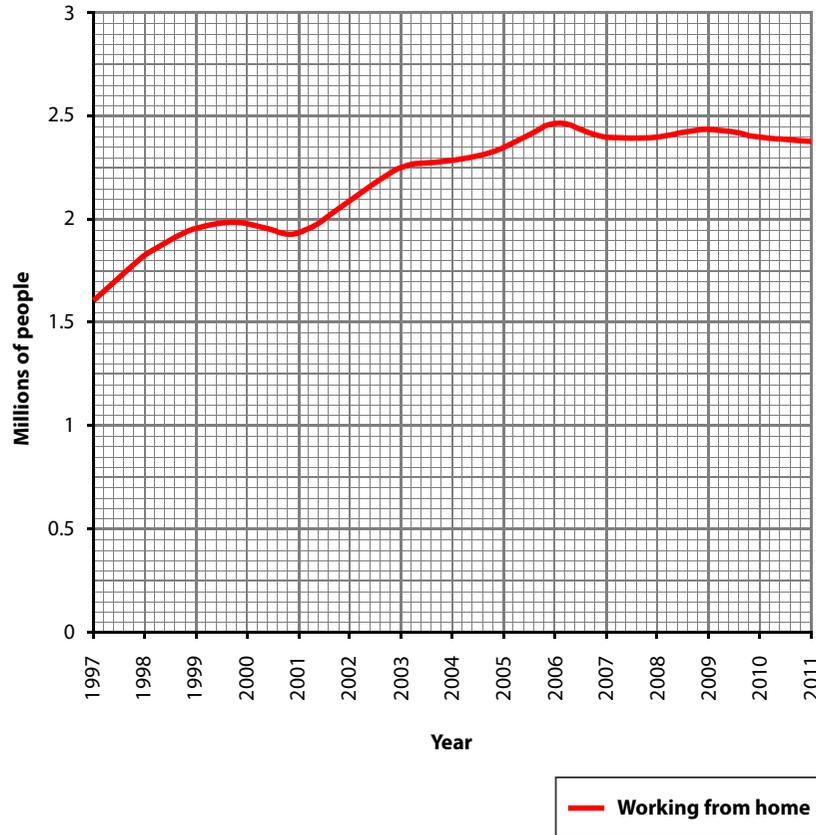
(Source: ONS labour market survey)

Figure 5

(a) Study Figure 5.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) In which year did the **highest** number of people work from home?

(1)

☒ **A** 2000

☒ **B** 2003

☒ **C** 2006

☒ **D** 2011

(ii) Suggest **one** reason for the trend shown in Figure 5.

(2)

....

....

....

....

(b) Which of these has the **largest** number of people working from home?

(1)

    ☒   **A**   Primary industry such as mining and quarrying.

    ☒   **B**   Manufacturing such as cars and electronics.

    ☒   **C**   Research such as genetics and medical.

    ☒   **D**   Services such as administration and teleworking.

(c) Suggest **one** reason why the number of women in the UK workforce has increased over the last 50 years.

(2)

....

....

....

....

*(d) For two contrasting UK regions, compare their industrial structure.

(6)

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 5 = 15 marks)

If you answer Question 6 put a cross in this box ☒ .

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

6 Figure 6 shows the populations of Liverpool and Bristol, 1961 to 2011.
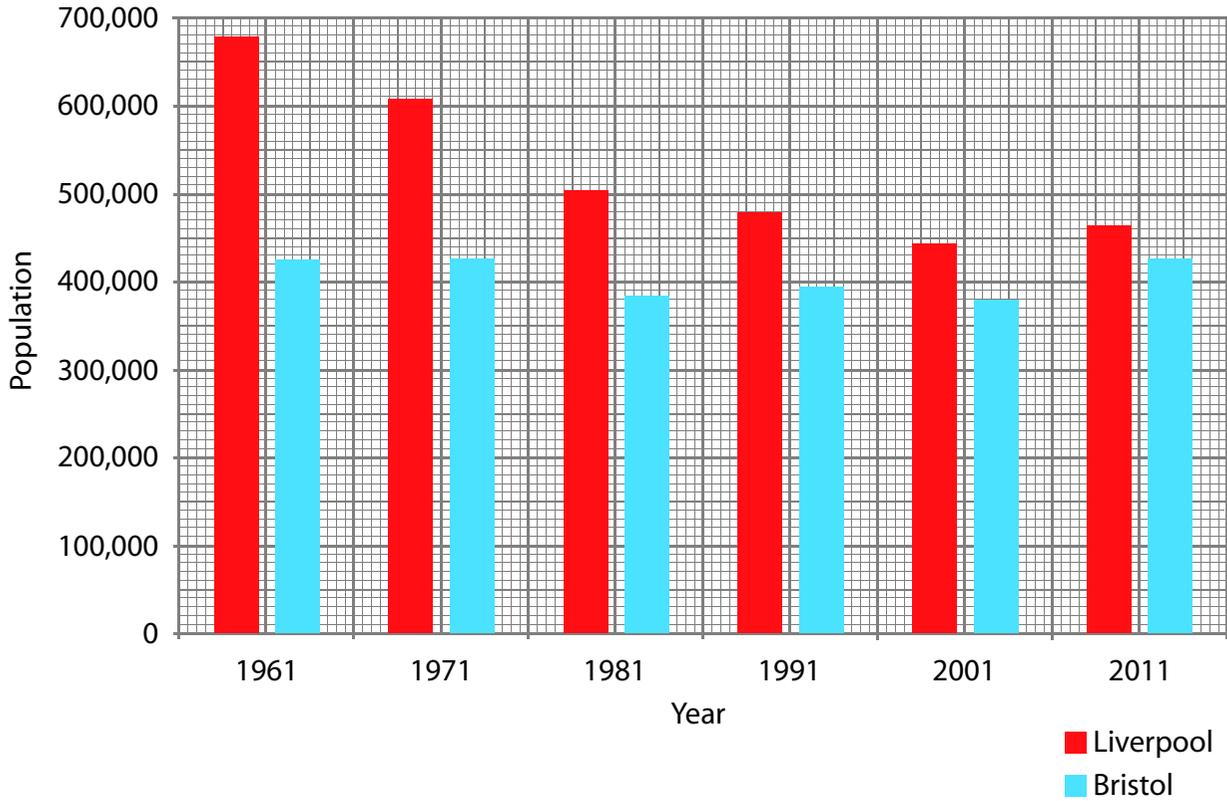
(Source: ONS)

Figure 6

(a) Study Figure 6.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i)   In which period did the population of **Liverpool** rise?

(1)

☒ **A** 1971–1981

☒ **B** 1981–1991

☒ **C** 1991–2001

☒ **D** 2001–2011

(ii) Which of the following best describes the trend in **Bristol's** population between 1961 and 2011?

(1)

☒ **A** Falling slowly

☒ **B** Fluctuating

☒ **C** Falling rapidly

☒ **D** Rising slowly

(iii) Suggest **one** reason for the trend in **Liverpool's** population between 1961 and 2001.

(2)

....

....

....

....

(b) What is meant by the term **deprivation**?

(2)

....

....

....

....

*(c) For two contrasting rural regions in the UK, compare their levels of deprivation.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 6 = 15 marks)

TOTAL FOR SECTION B = 15 MARKS

S 4 5 1 3 2 A 0 1 8 2 4

Answer ONE question in this section.

Topic 7: The Challenges of an Urban World

If you answer Question 7 put a cross in this box ☒ .

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

7 Figure 7 shows the proportions of different ways people travel to work in two megacities.

New York

- ☐ Public transport (bus, metro)
- ☐ Car

Mexico City

- ☐ Walk
- ☐ Cycle
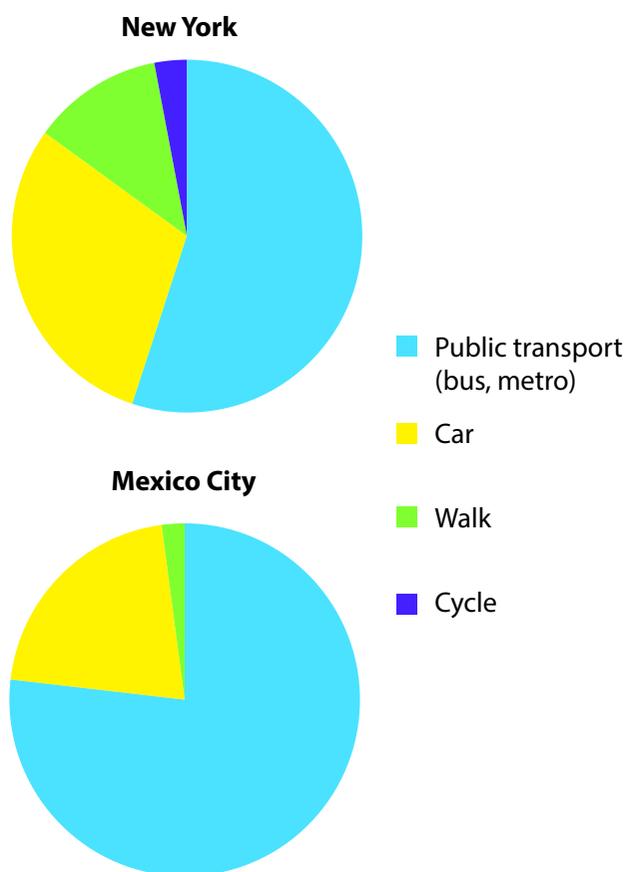
(Source: 'The Endless City', LSE, 2010)

Figure 7

(a) Study Figure 7.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i)   What proportion of people use public transport to travel to work in New York?

(1)

☒ **A** 45%

☒ **B** 55%

☒ **C** 65%

☒ **D** 75%

S 4 5 1 3 2 A 0 1 9 2 4

(ii) Which of these statements best describes the proportion of people who use cars to travel to work in the two megacities?

(1)

☒ **A** The proportion is the same in both cities.

☒ **B** Mexico City is twice as high as New York.

☒ **C** New York is slightly higher than Mexico City.

☒ **D** Mexico City is slightly higher than New York.

(iii) Suggest **one** reason why a higher proportion of people use public transport to travel to work in Mexico City.

(2)

....

....

....

....

(b) Outline **one** environmental problem in cities caused by high car use.

(2)

....

....

....

....

*(c) For a named city in the **developed** world, explain how it is attempting to develop sustainable transport.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 7 = 15 marks)

If you answer Question 8 put a cross in this box ☒ .

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

8 Figure 8 shows the sources of income for a farm in the USA in 1980 and 2010.
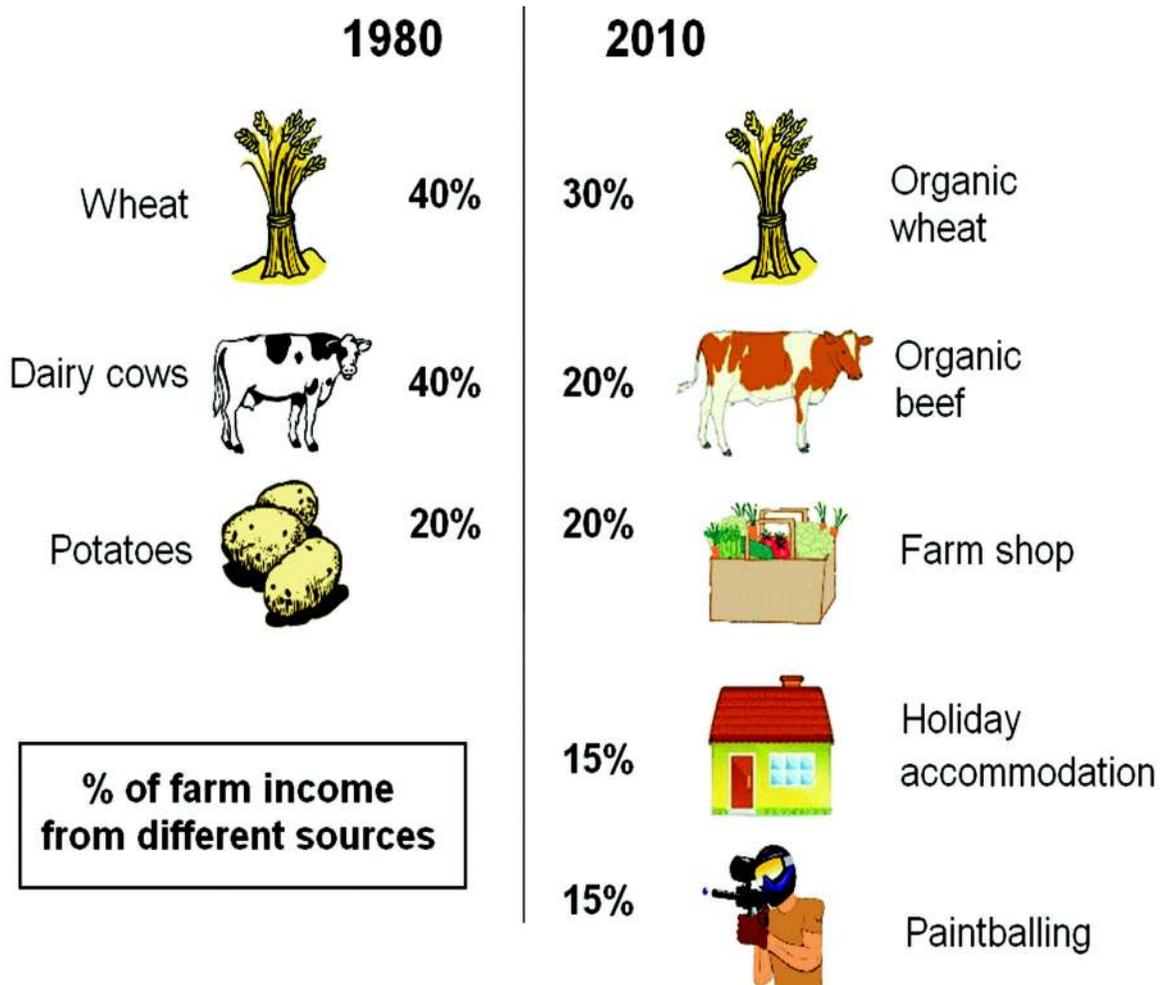
Figure 8

(a) Study Figure 8.

The following questions are multiple choice. Put a cross in the box of the answer you select. **There is only one correct answer to each question.**

(i) What percentage of farm income in **2010** came from growing crops, rearing animals and the farm shop?

(1)

☒ **A** 100%

☒ **B** 70%

☒ **C** 50%

☒ **D** 30%

(ii) Which of the following best describes the changes in farm income from agriculture between 1980 and 2010?

(1)

☒ **A** The percentage is the same in 1980 and 2010.

☒ **B** The percentage was higher in 1980 than in 2010.

☒ **C** The percentage was higher in 2010 than in 1980.

☒ **D** The percentage was three times higher in 1980 than in 2010.

(iii) Suggest **one** reason why the farm has changed between 1980 and 2010.

(2)

....

....

....

....

(b) Explain what is meant by **organic farming**.

(2)

....

....

....

....

*(c) Using named examples, explain how initiatives (schemes) in rural areas in the **developing** world can improve people's quality of life.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 8 = 15 marks)

TOTAL FOR SECTION C = 15 MARKS

TOTAL FOR PAPER = 78 MARKS

5GB2F Mark Scheme

Question number	Correct Answer	Reject	Mark
1(a)(i)	D = Japan: female	All other answers	1

Question number	Correct Answer	Reject	Mark
1(a)(ii)	C = It will grow rapidly	All other answers	1

Question number	Correct Answer	Acceptable Answers	Reject	Mark
1(b)	• A population with an increasing proportion / number (1) of elderly / older people (1) • Aged over 65 (1) • retired / not working (1) Award one mark for a basic point, plus a second mark for a developed point.	Population pyramid which is widening at the top / top heavy. Population were birth rates have fallen below death rate.	Reference to a youthful population.	2

Question Number	Acceptable Answers	Reject	Mark
1 (c)	Japan's pyramid is that of an ageing population. Social challenge: • Creates dependency (1). • Younger people needed to care for ageing relations (1) taking up their time (1). • Demands to increase immigration (1) which could lead to social / cultural tensions (1). Economic challenge: • Lack of younger workers to enter industry / business (1) skills shortages (1); could drive wages up increasing costs (1). • Lack of working age people paying taxes (1) problems paying for the ageing dependents (1); the costs of building care homes (1) and health care (1). Award one mark for a basic point, plus a second mark for a developed point. 2 x 2	Reference to Ethiopia. Reference to a youthful population.	4

Question Number	Acceptable Answers	Reject	Mark
1 (d)	A range of factors could affect future population: • Birth rates / fertility – exact rates in the future are hard to predict (1); small changes today could have a big impact on population levels in the future (1); cultural and economic factors could affect the rates (1). • Death rates – can change due to war / conflict (1) or disease e.g. Aids / HIV (1) • Migration – can have a big impact on population directly (emigrants or immigrants) (1) and indirectly (fertility rates) (1); hard to predict and the numbers are volatile (1) e.g. changes to policy (1). • Development / economic growth reduces BR, but it cannot be known in the future (1). Award one mark for a basic point, plus a second mark for a developed point	Descriptions of future population projections.	4

Question number	Correct Answer	Reject	Mark
2(a)(i)	D = to encourage people to recycle	All other answers	1

Question number	Correct Answer	Reject	Mark
2(a)(ii)	A = paper and cardboard	All other answers	1

Question number	Correct Answer	Acceptable Answers	Reject	Mark
2(b)	• Lack of recycling facilities nearby (1). • People cannot be bothered / it is too time consuming (1). • Not interested in the issue / do not see the problem (1). Award one mark for a basic reason.	Answers that argue it is too confusing / people do not know what can / cannot be recycled.	Answers which focus on why people recycle.	2

Question Number	Acceptable Answers	Reject	Mark
2 (c)	• Renewable energy could replace non-renewable fossil fuel resources (1) e.g. solar / wind power (1) which means less	Explanations which do not focus on environmental issues	4

| | pollution in the form of greenhouse gases / other pollutants (1); has a positive impact on global warming (1).
• Resource conservation reduces total demand (1) which in turn will reduce resource consumption so resources last longer / fewer resources are needed overall (1) e.g. electric cars, CFL bulbs (1).
• Changing behaviour (1) e.g. cycling rather than using a car reduces resource consumption (1).
Award one mark for a basic point, plus a second mark for a developed point or relevant example. 2 x 2
Do not credit the same explanation twice. | (such as economic costs). | |

Question Number	Acceptable Answers	Reject	Mark
2 (d)	• Malthus believed population would outstrip food supply (1) and took a pessimistic view of the relationship (1). • Details of the Malthusian geometric population growth (1) versus arithmetic food production increase (1) • Leading to a crisis (famine) (1) followed by checks (positive and preventative) (1) and population reduction (1). Award one mark for a basic point, plus a second mark for a developed point, or a relevant example e.g. Irish potato famine.	Other theories (Boserup, club of Rome) Resources other than food.	4

Question number	Correct Answer	Reject	Mark
3(a)(i)	C = Japan	All other answers	1

Question number	Correct Answer	Reject	Mark
3(a)(ii)	A = Africa	All other answers	1

Question number	Correct Answer	Acceptable Answers	Reject	Mark
3b	• New jobs / income / reduces unemployment for the areas (1). • More money the local economy to support shops and other services (1). • Opportunities to retrain / re-skill in a new industry (1).	Could argue that supplier companies benefits from more orders (more jobs). Manufacturing jobs could be seen as especially beneficial to traditionally industrial areas, and males.	Answers that do not focus on benefits to local people.	2

	Award one mark for a basic benefit to local people.			

Question Number	Acceptable Answers	Reject	Mark
3(c)	R&D locations in developed countries: • R&D demands higher levels of skill / education than car production which is found in the developed world (1), such as the number of university graduates / links to universities (1); high salary / competitive so attracts high flyers (1); also largest markets so R&D designs for these (1). Factories in developing countries: • Lower wages in developing countries (1); e.g. possible skills / worker shortages in Japan (1); need to overcome import tariffs by locating production in different countries (1); different products made locally for different markets (1); lower regulations e.g. labour / environmental (1). Award one mark for a basic point, plus a second mark for a developed point. 2x 2	Reference to production sites in 1 rather than R&D sites. Reference to reasons for production in Japan / developed countries in 2.	4

Question Number	Acceptable Answers	Reject	Mark
3(d)	Globalisation might be defined (global shift in industry, increase in trade and connections, shrinking world idea.) (1) Negatives • Exploitation (1) low wages / long hours, lack of unions in developing world factories (1); poor H&S and lack of compensation (1). • Relatively short working lives as younger women favoured (1); child labour could be mentioned (1). • Pollution and other environmental issues in the developing world (1). Award one mark for a basic point, plus a second mark for a developed point	Developed world. Positive impacts.	4

Question number	Correct Answer	Reject	Mark
4(a)	B = a developing country in Sub-Saharan Africa	All other answers	1

Question number	Correct Answer	Reject	Mark
4(b)	D = the income gap between the most and least developed countries.	All other answers	1

Question number	Correct Answer	Acceptable Answers	Reject	Mark
4(c)	• HDI, or a similar index (1) • GDP / GNI per capita or similar (1) Award one mark each realistic, specific measure.	There are many other measures such as % of children in education, infant mortality rates, internet access %, and population per doctor. Accept if realistic.	GDP/ GNI if not qualified further.	2

Question Number	Acceptable Answers	Reject	Mark
4 (d)	The focus needs to be on how these issues shown could prevent development; **two** from: Landlocked: • Being landlocked makes imports / exports harder (1) as trade flows depend on the co-operation of another country (1), this could also increase costs for business (1); could make connections such as the internet harder to put in place (1). HIV/Aids: • High health care costs, money that could be spent elsewhere (1) for instance on education (1); reduces the number of healthy people in the workforce (1) which could restrict business development or farming (1). Population growth: • The economy needs to grown by 3%+ per year to keep pace with the population (1), and the high number of young people means high healthcare and education costs (1), money which could be spent on e.g. infrastructure (1). Award one mark for a basic point, plus a second mark for a developed point or relevant example. 2x 2	Reference to barriers not shown on Fig 4. Reference to opportunities e.g. of increasing working population in the future from population growth.	4

Question Number	Acceptable Answers	Reject	Mark
4 (e)	• Low income farming in rural areas (subsistence) (1) • Very hard work for little reward (1) • Risk of natural hazards like drought and flood (1) which can remove ability to earn money / feed family (1). • Lack of services in rural areas (1) such as health and education (1) • Peripheral areas / lack of connections ideas (1) leading to limited opportunities (1). Award one mark for a basic point, plus a second mark for a developed point or relevant example	Developed world Urban areas.	4

Question number	Correct Answer	Reject	Mark
5(a)(i)	C = 2006	All other answers	1

Question Number	Acceptable Answers	Reject	Mark
5(a)(ii)	• The rise of the internet / mobile phone use and other technology (1) makes it easier for people to work from home and keep in touch with their HQ (1); businesses cutting costs by making use of new technology (1). • An increase in the number of people setting up their own businesses (1) because of job losses / desire to be their own boss (1). • More women entering the workforce (1) who want to work from home to combine working with childcare (1). • Declines (2000, 2006) could be the result of recessions / rising unemployment (1). Award one mark for each basic point, plus a second mark if point is developed.	Reasons that don't relate to the changes in Fig 5. One word answers such as 'the internet'.	2

Question number	Correct Answer	Reject	Mark
5(b)	D = services such as administration and teleworking	All other answers	1

Question number	Correct Answer	Acceptable Answers	Reject	Mark
5(c)	• Increase in service sector jobs, many of which are done by women (1). • Increase in equal	A focus on educational attainment and a greater % of women in HE. More flexible / part-	Answers which do not focus on women.	2

	rights and equal pay, encouraging women into the workforce (1).	time jobs available which suit women.		
	• Higher availability of childcare (1). Award one mark for each basic point, or a second mark for a developed point.			

Question Number	Indicative content
5 (d) QWC i,ii,iii	The two regions should contrast; likely choices include the South East / London region (services / finance), eastern England (farming), then south west (fishing / tourism) or manufacturing regions such as the Midlands and North West. Expect details of the balance of P/S/T/ Q industry such as the financials services dominated SE/London versus farming in the East of England. Quaternary areas such as the M4 corridor could be mentioned and contrasted with secondary industry in northern regions.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response identifies two regions but the contrast may not be clear. Limited details on structure and may just generalised industry. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	Response refers to two contrasting regions and has some details on structure / types of industry in both. The response uses at least one region with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	Response refers to two contrasting regions and uses details of structure in both, as part of a comparison. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of

		the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
6(a)(i)	D = 2001-2011	All other answers	1

Question number	Correct Answer	Reject	Mark
6(a)(ii)	B = fluctuating	All other answers	1

Question Number	Acceptable Answers	Reject	Mark
6(a)(iii)	The population falls because: • Deindustrialisation caused a loss of jobs (1) and many people are likely to have migrated away to look for work (1) • As the area declines, a spiral of decline set in (1) so more people left / people / businesses were not attracted to the area (1). • Linked problems such as crime may have contributed to out migration (1) and counter-urbanisation (1). • Ageing population = low birth rate (1). Award one mark for each basic point, plus a second mark if point is developed.	Reference to 2011.	2

Question number	Correct Answer	Acceptable Answers	Reject	Mark
6(b)	When people lack (1) what is considered normal for the rest of society (1) such as income / good housing / transport / services (1). Award one mark for a basic point, plus a second mark for a developed point.	Accept not having something / lacking something + an example / illustration for 2 marks.	A list of things deprived areas lack (this would be 1 mark only).	2

Question Number	Indicative content
6 (c) QWC i,ii,iii	Expect details of: Remoteness / mobility • Some areas are very remote and isolated e.g. Scottish Highlands; in these areas population density is so low there are few services (thresholds); distances and travel costs are large (contributing to income deprivation) and choice is low (education services); out-migration reduced demand for services even more.

		Jobs / economic issues
		- Some rural areas have seen jobs decline e.g. in fishing and farming (mechanisation) and not been replaced by other jobs (tourism), so opportunity remains low; jobs are often low paid and part time / seasonal adding to income deprivation. Migration - Out-migration of the young and skilled leaves behind and ageing population / fewer skilled people with proportionally higher levels of deprivation.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response attempts to describe deprivation in rural areas but with little accuracy and only limited reference to areas. Understanding of deprivation is limited. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	The response attempts to compare deprivation in two rural regions but the comparison is superficial. The response uses at least one region with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	The response compares deprivation in two contrasting rural regions and gives a range of detailed explanations for this. Two regions are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
7(a)(i)	B = 55%	All other answers	1

Question number	Correct Answer	Reject	Mark
7(a)(ii)	C = New York is slightly higher than Mexico City	All other answers	1

Question Number	Acceptable Answers	Reject	Mark
7(a)(iii)	Public transport use is higher in Mexico City, this could be because: • Public transport network may be better in Mexico City (1) or fares cheaper (1) so it is used more (1). • People in Mexico City are on average poorer (1) so cannot afford to use private cars / car ownership is lower / public transport is cheaper (1). • Congestion makes using a car more difficult in Mexico City (1); distances / parking means car use is impractical (1) • Credit knowledge that car use in restricted by number plate in Mexico City (1) Award one mark for each basic point, plus a second mark if point is developed.	Reference to the other types of transport on Fig 7. Detailed statistical answers that lack reasons.	2

Question number	Correct Answer	Acceptable Answers	Reject	Mark
7(b)	• Air pollution (1) which leads to low air quality and health problems (1) such as bronchitis / asthma (1). • Traffic congestion (1) which wastes fuel due to stationary traffic (1). Award one mark for a basic point, plus a second mark for a developed point.	Further details of air pollution such as photochemical smog. Noise and stress in carefully argued as an environmental stress.	'pollution'. Global warming. Transport other than car use.	2

Question Number	Indicative content
7 (c) QWC i,ii,iii	Reference could be made to a number of different cities and strategies e.g. London: • Reducing transport pollution with the introduction on the Congestion Charge which has had some success at reducing traffic volumes • London's Low Emission Zone which bans the most polluting vehicles from the city in order to improve air quality • Attempts to increase cycling with a network of cycle routes and 'Boris bikes' similar schemes are also used in cities such as Denver • Underground systems could also be considered e.g. extensions such as the Jubilee line or even Crossrail to encourage more people to use public transport

Level	Mark	Descriptor
		• The introduction of cleaner vehicles such as buses and infrastructure for electric cars e.g. charging points
Level 0	0	No acceptable response.
Level 1	1-2	The response describes some transport schemes in a city / cities but with limited detail and lacking a link to sustainability. Examples are not used beyond named places. Limited structure and basic use of geographical terminology.
Level 2	3-4	The response explains why some transport schemes have been developed with an implied understanding of sustainability, but variable detail. The response uses at least one example with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	The response explains how transport systems have been developed with good detail and clear explanations which link to / show understanding of sustainability. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
8(a)(i)	B = 70%	All other answers	1

Question number	Correct Answer	Reject	Mark
8(a)(ii)	B = The percentage was higher in 1980 than 2010	All other answers	1

Question Number	Acceptable Answers	Reject	Mark
8 (a) (iii)	• The farm has undergone diversification between 1980 and 2010 (1) • Because of the need to have a broader /	Ideas that the farm has been sold etc Answers must focus	2

| | more secure set of income streams (1).
• Rising prices for beef / better organic prices (1)
• Less money in farming, more income / valued added to be earned from e.g. retailing (1).
• Farmer gets income from production and sales in 2010 (1)
• Credit the idea of falling prices for produce means other income is needed (1) or demand from the consumer for different products (organic, farm shops) (1).
Award one mark for each basic point, plus a second mark if point is developed. | on reasons for diversification. Restatement of the change with no reason "there are holiday cottages now". | |

Question number	Correct Answer	Acceptable Answers	Reject	Mark
8(b)	Farming which does not use (artificial) chemicals (1) such as fertilizers and pesticides (1) in order to produce more ecologically friendly foods (1). Award one mark for a basic point, plus a second mark for a developed point.	Details of animal husbandry e.g. not using antibiotics. Farming that aims to protect / enhance biodiversity.	Answers focussed on other types of farming. Vague statements such as 'healthier farming'.	2

Question Number	Indicative content
8 (c) QWC i,ii,iii	A wide range of schemes could be discussed, but they must focus on the developing world: • micro-finance schemes such as the Grameen Bank and others, which provide small scale loans to start businesses and therefore improve income, especially among women. • mobile health services and mobile education, such as bare foot doctors, which aim to bring mobile services to isolated areas which would otherwise never receive them. • fair-trade schemes such as the Kuapa Kokoo initiative in Ghana which uses the fair trade premium to improve village services such as education and health • intermediate technology to reduce soil erosion and improve water supply - such as pumpkin tanks and magic stones; these can improve health, farm production and income.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Response describes some schemes but with variable detail and quality of life improvements are not considered. Examples are not used beyond named places. Limited structure and basic use of geographical

		terminology.
Level 2	3-4	Response explains a range of schemes, with variable detail, but with some explanation of how these schemes have improved quality of life. The response uses at least one example with some detail. Some structure and clearly communicated but with limited use of geographical terminology.
Level 3	5-6	Response uses examples of schemes and provides some details, to explain how these have improved quality of life in rural areas. Examples are used with some detailed description. Clear structure and well communicated with mostly sound use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

**Pearson
Edexcel GCSE**

Geography B
Unit 2: People and Planet

Higher Tier

Sample Assessment Material
Time: 1 hour 15 minutes

Paper Reference
5GB2H/01

You do not need any other materials.

Total Marks

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.
- In Section A, answer **all** questions.
- In Section B, answer **either** question 5 **or** 6.
- In Section C, answer **either** question 7 **or** 8.
- Answer the questions in the spaces provided
  – *there may be more space than you need*.

Information

- The total mark for this paper is 78.
- 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.
- Check your answers if you have time at the end.

Turn over ▶

Answer ALL questions in this section.

Topic 1: Population Dynamics

1 Figure 1 shows population pyramids for Ethiopia and Japan in 2012.

Figure 1

(a) (i) Study Figure 1

Outline **one** difference between the population pyramids.

(2)

....

....

....

....

(ii) Japan faces social and economic challenges because of the shape of its population pyramid.

Outline **one** social and **one** economic challenge it faces.
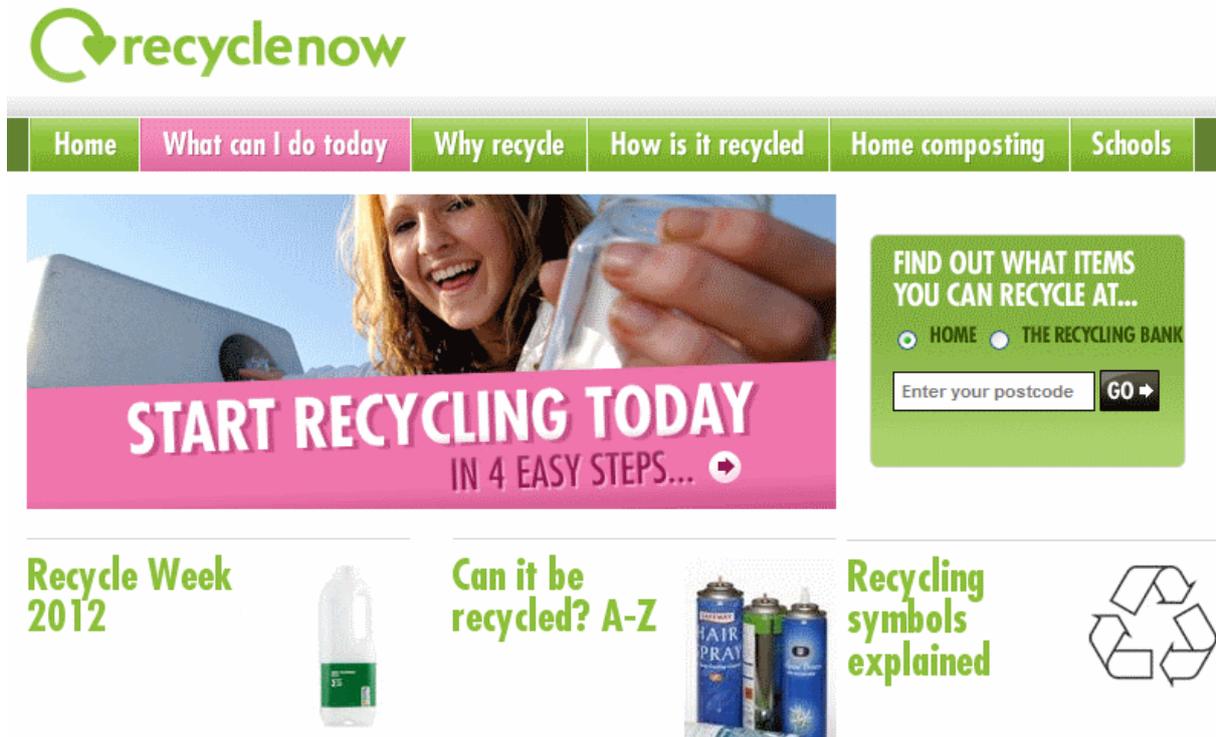
(4)

Social challenge

....

....

....

....

Economic challenge

....

....

....

(b) Using named examples, explain why predicting the future population size of countries is difficult.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 1 = 12 marks)

Topic 2: Consuming Resources

2   Figure 2 shows a web page from 'Recycle Now' the official UK recycling campaign.

(Source: http://www.recyclenow.com/what_can_i_do_today/index.html)

Figure 2

(a) Study Figure 2.

Describe **two** ways that this web page encourages consumers to recycle.

(2)

....

....

....

....

(b) Other than recycling, describe **two** ways in which resource consumption can be made more sustainable.

(4)

1 ....

....

2 ....

....

(c) Explain the differences in the theories of Malthus and Boserup about the relationship between population and resources.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 2 = 12 marks)

Topic 3: Globalisation

3 Figure 3 shows the global distribution of Toyota's factories and research and development sites.

Factories (making cars, engines and gearboxes)
Research and development sites
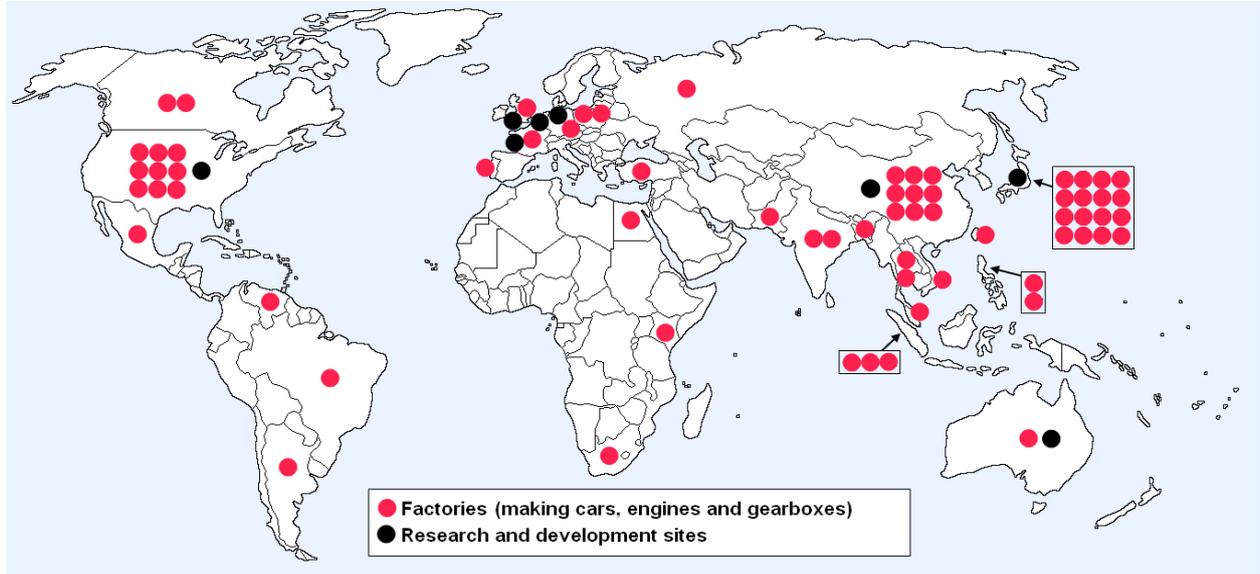
(Source: Toyota corporate website)

Figure 3

(a) (i) Study Figure 3.

Describe the global pattern of Toyota's **factories**.

(2)

....

....

....

....

(ii) Suggest reasons why:

(4)

Toyota's research and development sites are mostly in **developed** countries.

....

....

....

....

Toyota locates some factories in **developing** countries.

....

....

....

....

(b) Examine the positive and negative impacts of globalisation on **different** groups of people.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 3 = 12 marks)

Topic 4: Development Dilemmas

4 Figure 4 shows information about Zambia, a developing country in Africa.

1. A landlocked country (with no coastline)

2. 14% of adults have HIV / AIDS

3. The population is growing by 3% each year

Figure 4

Study Figure 4.

(a) (i) Outline **one** way of measuring development **not shown** on Figure 4.

(2)

....

....

....

....

(ii) Choose **two** of the issues on Figure 4 and suggest how each could be a barrier to further development.

(4)

Choice 1

....

....

Choice 2

....

....

(b) Examine why levels of development vary between rural and urban areas in the developing world.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 4 = 12 marks)

TOTAL FOR SECTION A = 48 MARKS

5 Figure 5 shows trends in working from home in England and Wales, 1997 to 2011.
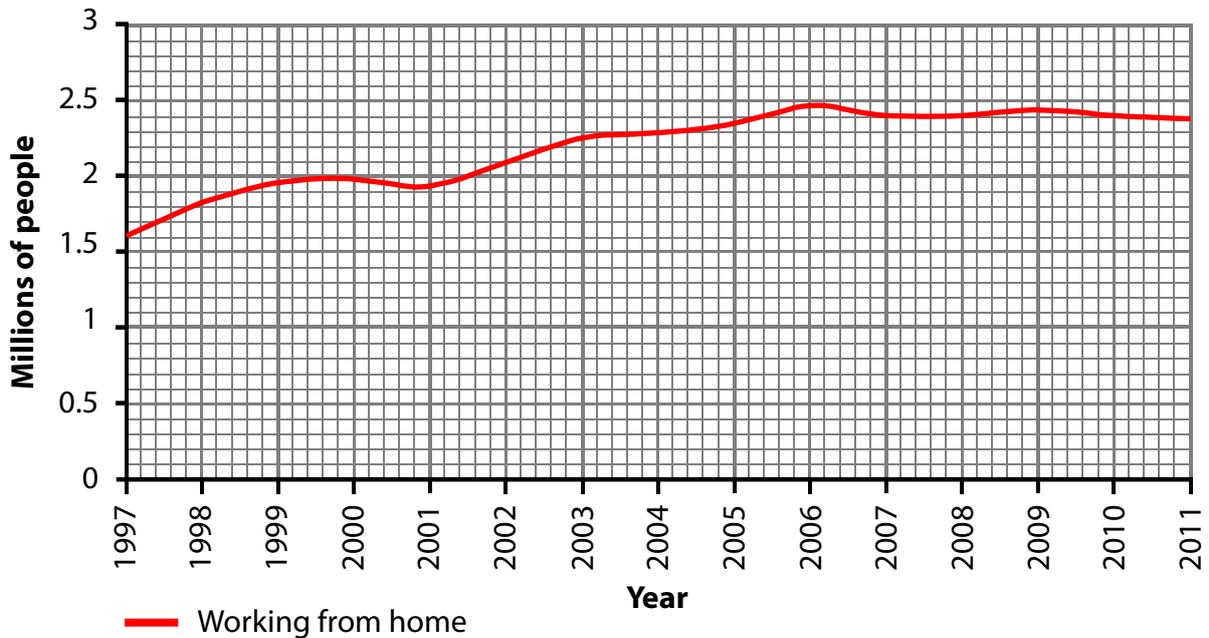
(Source: ONS labour market survey)

Figure 5

(a) (i) Study Figure 5.

Describe the trend in working from home between 1997 and 2011.

(2)

....

....

....

....

(ii) Suggest **one** reason for the trend shown in Figure 5.

(2)

....

....

....

....

....

*(b) For two contrasting UK regions, examine the reasons for the differences in their industrial structure.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 5 = 15 marks)

6 Figure 6 shows the populations of Liverpool and Bristol, 1961 to 2011.

Year

■ Liverpool
■ Bristol
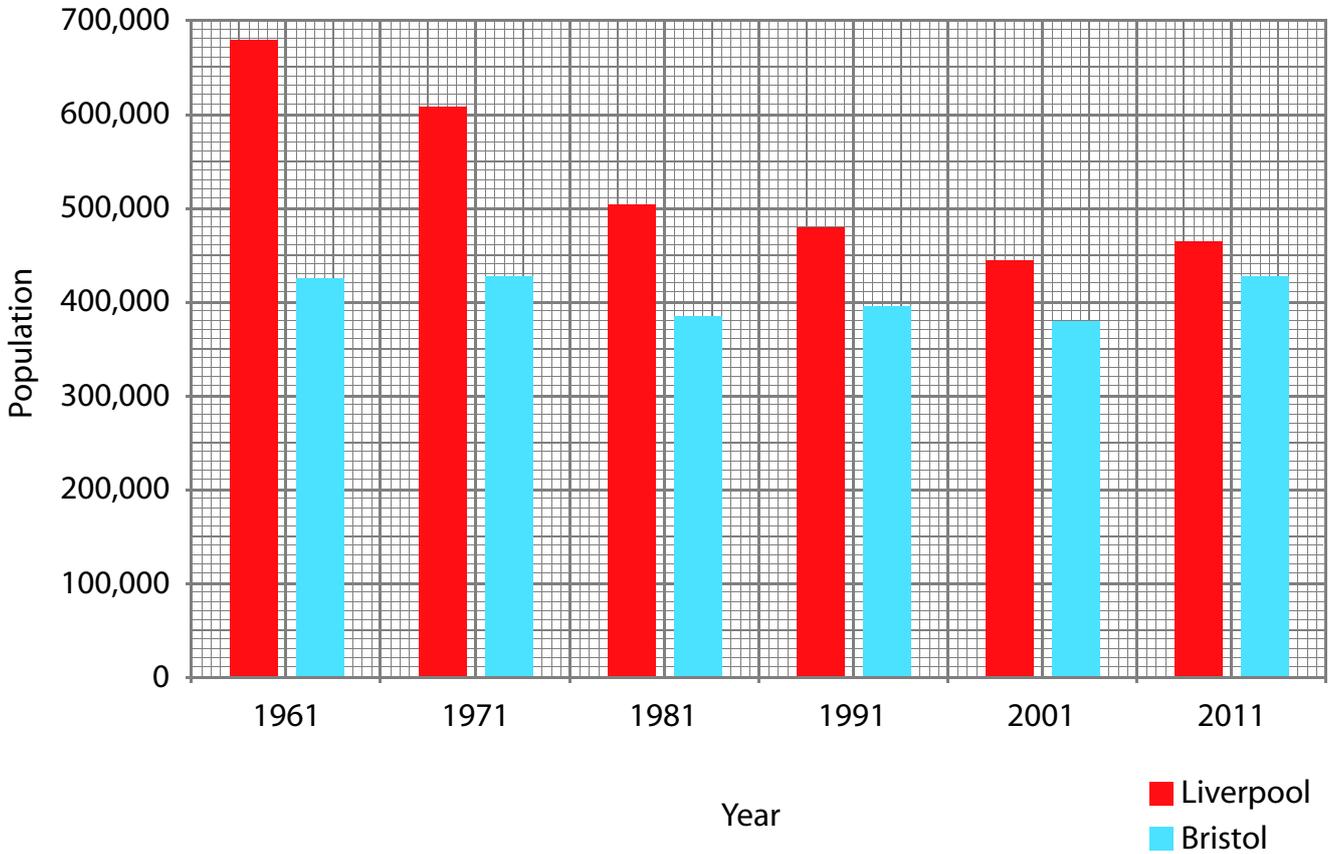
(Source: ONS)

Figure 6

(a) (i) Study Figure 6.

Describe the trend in **Bristol's** population between 1961 and 2011.

(2)

....

....

....

....

S 4 5 1 3 4 A 0 1 3 1 8

(ii) Suggest **one** reason for the trend in **Liverpool's** population between 1961 and 2001.

(2)

....

....

....

....

*(b) For two contrasting rural regions in the UK, examine the reasons for the differences in their levels of deprivation.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 6 = 15 marks)

TOTAL FOR SECTION B = 15 MARKS

Answer ONE question in this section.

Topic 7: The Challenges of an Urban World

If you answer Question 7 put a cross in this box ☒ .

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

7 Figure 7 shows how people travel to work in two megacities.

New York

☐ Public transport (bus, metro)

☐ Car

Mexico City

☐ Walk

☐ Cycle
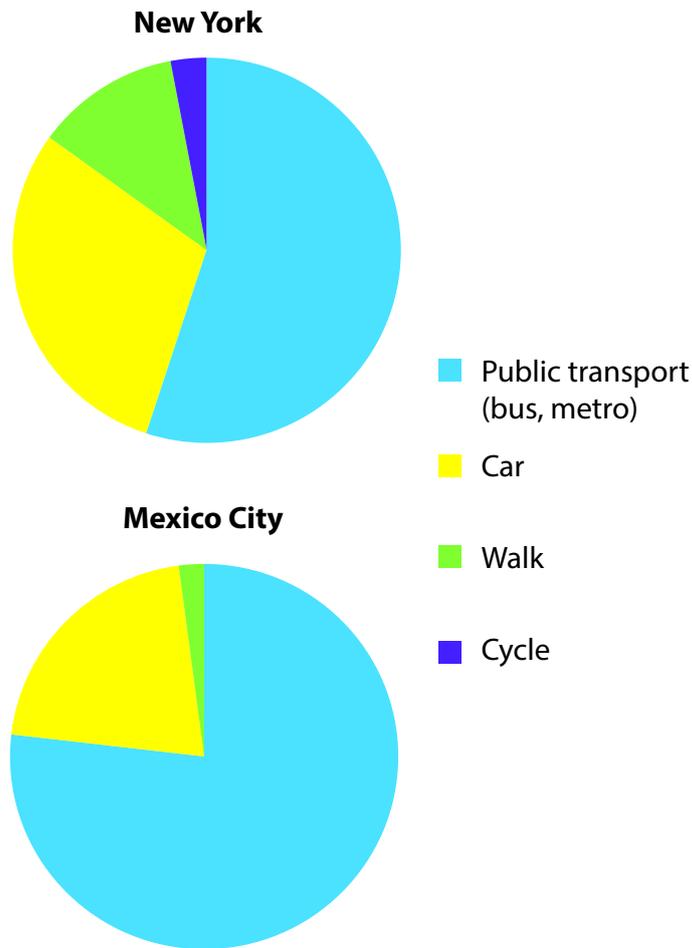
(Source: 'The Endless City', LSE, 2010)

Figure 7

(a) (i) Study Figure 7.

Outline the **difference** in car use between the two megacities.

(2)

....

....

....

....

(ii) Suggest **one** reason why a higher proportion of people use public transport to travel to work in Mexico City.

(2)

....

....

....

....

*(b) For a named city in the **developed** world, examine the success of attempts to develop more sustainable transport.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 7 = 15 marks)

Topic 8: The Challenges of a Rural World

If you answer Question 8 put a cross in this box ☒.

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

8   Figure 8 shows the sources of income for a farm in the USA in 1980 and 2010.
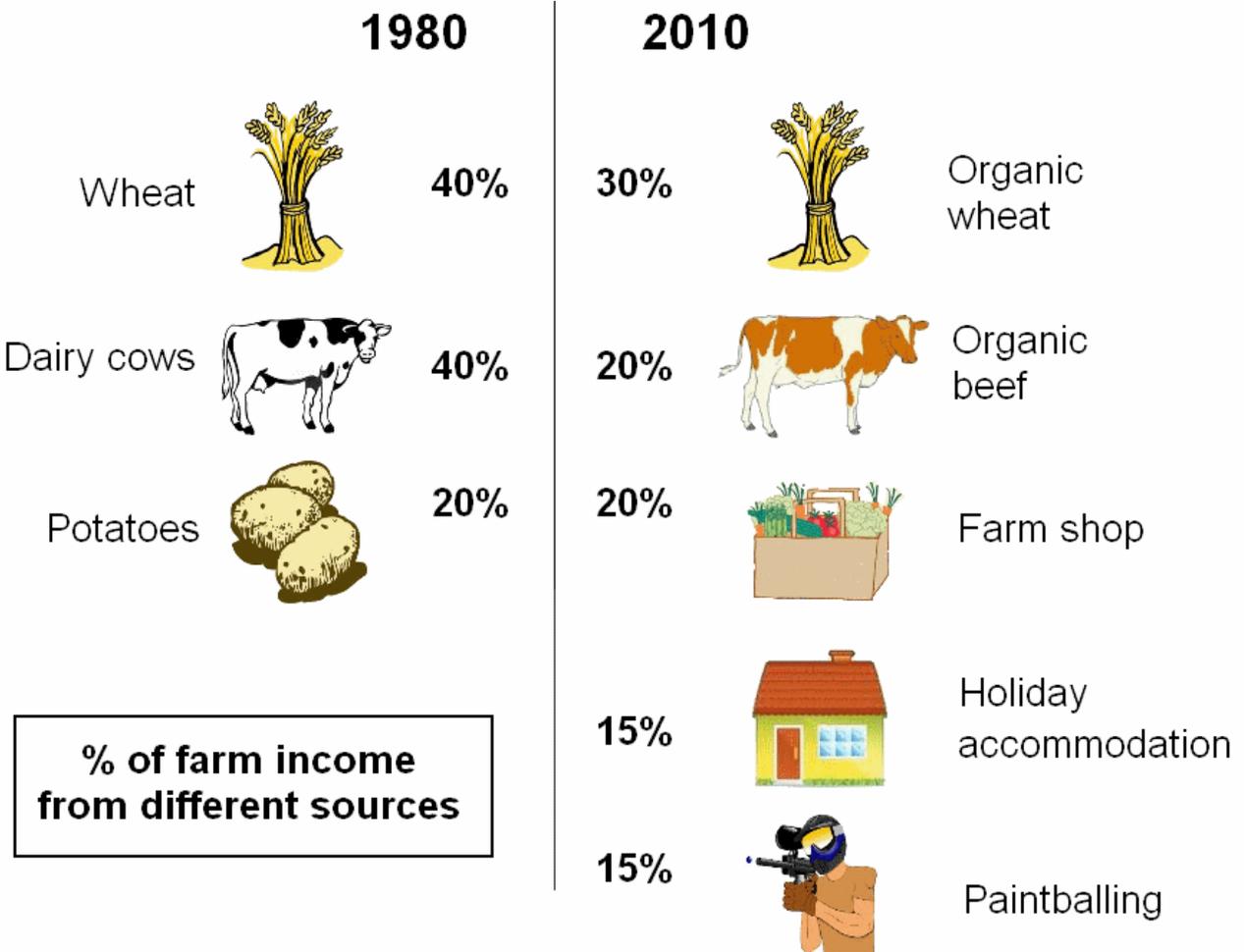
Figure 8

(a) (i) Study Figure 8.

Outline **one** way this farm has diversified between 1980 and 2010.

(2)

....

....

....

....

(ii) Suggest **one** reason why the farm has changed between 1980 and 2010.

(2)

....

....

....

....

*(b) Using named examples, examine the success of initiatives (schemes) designed to improve quality of life for people in rural areas of the **developing** world.

(8)

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 8 = 15 marks)

TOTAL FOR SECTION C = 15 MARKS

TOTAL FOR PAPER = 78 MARKS

5GB2H Mark Scheme

Question number	Correct Answer	Acceptable Answers	Reject	Mark
1(a)(i)	• Japans population is larger than Ethiopia's (1) plus evidence from Fig 1 (1) • Ethiopia's population has a much wider base (0-14) than Japan's (1) plus evidence from Fig 1 (1) • Most numerous age groups in Japan are 35-44 and 6-64 (1), compared to 0-14 in Ethiopia (1). • Much higher number of 65+ in Japan (1) plus evidence from Fig 1 (1) • Most numerous age group in Japan is 60-64 (1), but 0-4 in Ethiopia (1). Award one mark for each comparative point plus an extension e.g. data.	More women in Japan, especially above age 65. At each increasing age group Ethiopia's population has fewer people; Japan's age categories have more variation.	Vague descriptions of 'smoothness' etc	2 1+1

Question Number	Acceptable Answers	Reject	Mark
1 (a) (ii)	Japan's pyramid is that of an ageing population. Social challenge: • Creates dependency (1). • Younger people needed to care for ageing relations (1) taking up their time (1). • Demands to increase immigration (1) which could lead to social / cultural tensions (1). Economic challenge: • Lack of younger workers to enter industry / business (1) skills shortages (1); could drive wages up increasing costs (1). • Lack of working age people paying taxes (1) problems paying for the ageing dependents (1); the costs of	Reference to Ethiopia. Reference to a youthful population.	4

	building care homes (1) and health care (1). Award one mark for a basic point, plus a second mark for a developed point. 2 x 2		

Question Number	Indicative content
1 (b)	A range of issues that affect population growth and size could be discussed: • Birth rates / fertility – exact rates in the future are hard to predict; small changes today could have a big impact on population levels in the future; cultural and economic factors (as well as immigration e.g. in the UK or source countries such as Poland) could affect the rates. • Death rates – can change due to war / conflict or disease e.g. Aids / HIV; in general they have fallen for decades but not everywhere e.g. in countries such as Sudan and Afghanistan that have suffered conflict. • Migration – can have a big impact on population directly (emigrants or immigrants) and indirectly (fertility rates); hard to predict and the numbers are volatile (changes in policy) e.g. in the UK due to changes numbers of migrants and impact of policy. Credit ideas that population growth rates could be affected by cultural changes, increased economic development which generally lowers fertility, or even factors such as conflict.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Attempts an explanation of some reasons but with a narrow focus; explains why population changes not why it is hard to predict.
Level 2	3-4	Some explanations of several factors that could affect future population, but in general terms; some links to the difficulty of predicting future population size. Some details are provided. Examples used are named places only.
Level 3	5-6	A range of explanations of why predicting future populations in difficult, linked to factors that affect population size. Examples used are well located and with linked detail.

Question number	Correct Answer	Acceptable Answers	Reject	Mark
2 (a)	• Making it easier, as consumers can locate their local facilities (1). • Explaining what can and cant be recycled e.g. symbols / A-Z, so making sense of what may seem complex / difficult (1). • Suggesting new ways e.g. composting, which people had not considered (1).	Education ('why recycle') which could give people a reason to recycle. Involving schools to get people started early (children encourage parents)	One word answers such as 'education' or 'information'.	2

	• Making it seem easy '4 easy steps' to get started (1). Award one mark for each correct way described.			

Question Number	Acceptable Answers	Reject	Mark
2 (b)	• Renewable energy could replace non-renewable fossil fuel resources (1) e.g. solar / wind power (1) which means less pollution in the form of greenhouse gases / other pollutants (1); has a positive impact on global warming (1). • Resource conservation reduces total demand (1) which in turn will reduce resource consumption so resources last longer / fewer resources are needed overall (1) e.g. electric cars, CFL bulbs (1). • Changing behaviour (1) e.g. cycling rather than using a car reduces resource consumption (1). Award one mark for a basic point, plus a second mark for a developed point or relevant example. 2 x 2 Do not credit the same explanation twice.	Explanations which do not focus on environmental issues (such as economic costs).	4

Question Number	Indicative content
2 (c)	• Malthus believed population would outstrip food supply, whereas Boserup believed food production could keep pace with population. • May contrast the pessimistic Malthusian view with the more optimistic Boserupian one. • Details of the Malthusian geometric population growth versus arithmetic food production increase, leading to a crisis (famine) followed by checks (positive and preventative) and population reduction. • Details of the Boserup 'necessity is the mother of invention' idea that population growth spurs new ways of farming – fertilizers, use of machines. • Other relevant points could include the age of Malthus's theory (is it still relevant today?), or examples of Boserups's technology e.g. green revolution. Accept a discussion / evidence based on resources other than food.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Attempts an explanation of the basic differences but this is partial and lacks details. Some generalised examples used.
Level 2	3-4	Some explanation of the differences between the two theories and some details are provided, but unbalanced.

Level 3	5-6	A detailed explanation of the differences with some detail provided in the form of examples. Balanced between the two theories.

Question number	Correct Answer	Acceptable Answers	Reject	Mark
3(a)(i)	• Main concentration of factories in Asia e.g. 16 in Japan, 9 in China (40 in Asia as a whole) (1). • Significant numbers in North America (12) and Europe (7) (1). • Fewest factories in South America / Africa / developing world e.g. 3 in Africa (1). Award one mark for each correct point which is supported by evidence.	A developed versus developing world answer as long as it is supported by evidence. May split Asia into south and east etc.	Very vague statements such as 'Toyota has factories everywhere' Reference to R&D sites. Descriptive points which do not use evidence.	2

Question Number	Acceptable Answers	Reject	Mark
3(a) (ii)	R&D locations in developed countries: • R&D demands higher levels of skill / education than car production which is found in the developed world (1), such as the number of university graduates / links to universities (1); high salary / competitive so attracts high flyers (1); also largest markets so R&D designs for these (1). Factories in developing countries: • Lower wages in developing countries (1); e.g. possible skills / worker shortages in Japan (1); need to overcome import tariffs by locating production in different countries (1); different products made locally for different markets (1); lower regulations e.g. labour / environmental (1). Award one mark for a basic point, plus a second mark for a developed point. 2x 2	Reference to production sites in 1 rather than R&D sites. Reference to reasons for production in Japan / developed countries in 2.	4

Question Number	Indicative content
3 (b)	Globalisation might be defined or considered in terms of a global shift in industry, and increase in trade and connections, the shrinking world idea. A range of different groups of people can be examined such as men versus women, children, developed versus developed world. Positives • Job / income gains in developing countries e.g. manufacturing in China, services in India; focus on employment for women. • Rising incomes bring increased living standards and quality of life. Contrast with rural poverty and relative urban wealth. Negatives • Exploitation, low wages, long hours, lack of unions in developing world factories; relatively short working lives as younger women favoured; child labour could be examined. • Job losses in the developed world especially males in traditional manufacturing. Rising job insecurity. • Pollution and other environmental issues in the developing world. • Idea that globalisation has bypassed some groups e.g. sub-Saharan Africa.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Attempts to outline some basic positives and / or negative impacts. Lacks clear link to globalisation. No reference to different groups of people. Some generalised examples used.
Level 2	3-4	Some positive and negative impacts examined with some details, but unbalanced. Some reference to different groups. Some details are provided, and there is some link to globalisation.
Level 3	5-6	Detailed examination of positive and negative impacts. Balanced. Clear reference to different groups. Well located and with detail linked to globalisation.

Question number	Correct Answer	Acceptable Answers	Reject	Mark
4(a)(i)	• GDP / GNI per capita (1) could indicate income levels. (1) • HDI (1) could be used to indicate quality of life. (1) • Infant mortality (1) indicates health care / services (1) • % of children in school (1) indicates access / proxy fro family income. Award one mark for each realistic measure plus an extension mark.	Measures such as political freedom or democracy indicators. Note there are many other acceptable indicators.	One word answers e.g. 'GDP' with no further comment. Reference to the indicators on Fig 4.	2

Question Number	Acceptable Answers	Reject	Mark
4 (a) (ii)	The focus needs to be on how these issues shown could prevent development; **two** from: Landlocked: • Being landlocked makes imports / exports harder (1) as trade flows depend on the co-operation of another country (1), this could also increase costs for business (1); could make connections such as the internet harder to put in place (1). HIV/Aids: • High health care costs, money that could be spent elsewhere (1) for instance on education (1); reduces the number of healthy people in the workforce (1) which could restrict business development or farming (1). Population growth: • The economy needs to grown by 3%+ per year to keep pace with the population (1), and the high number of young people means high healthcare and education costs (1), money which could be spent on e.g. infrastructure (1). Award one mark for a basic point, plus a second mark for a developed point or relevant example. 2x 2	Reference to barriers not shown on Fig 4. Reference to opportunities e.g. of increasing working population in the future from population growth.	4

Question Number	Indicative content
4 (b)	• At the most basic level, development will be seen as lower in rural areas and higher in urban. • This could be extended by an explanation of why this is e.g. low income farming in rural areas (subsistence); very hard work for little reward; risk of natural hazards like drought and flood. In Urban areas there are more employment opportunities, better services. • More detailed answers might argue that urban slums have low levels of development. • Answers should make reference to named country (or more than one) and this should include rural and urban locations e.g. cities like Mumbai or Shanghai versus rural areas such as Rajasthan or Gansu.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-2	Attempts an examination of rural and urban differences in a basic, generalised way, with no reference to named places / named country. Some generalised examples used.
Level 2	3-4	Some examination of rural and urban differences. Some details are provided and there is likely to be some reference to named places within a country, but unbalanced.
Level 3	5-6	A detailed examination of the differences between rural and urban

		areas, may refer to anomalies. Likely to use located named places within a country and with linked detail.

Question number	Correct Answer	Reject	Mark
5 (a) (i)	• General increase 1997-2011 (1) from 1.6 million to 2.4 million (1) • Declines in 2000 and /or 2006 (1) • Most rapid increase in 1997-2000 and / or 2001-2003 (1) • Flat since 2006 (1) Award one mark for each basic point plus an extension mark e.g. use of data / anomaly.	Answers that do not refer to Fig 5. Reasons / explanations.	2

Question Number	Acceptable Answers	Reject	Mark
5 (a) (ii)	• The rise of the internet / mobile phone use and other technology (1) makes it easier for people to work from home and keep in touch with their HQ (1); businesses cutting costs by making use of new technology (1). • An increase in the number of people setting up their own businesses (1) because of job losses / desire to be their own boss (1). • More women entering the workforce (1) who want to work from home to combine working with childcare (1). • Declines (2000, 2006) could be the result of recessions / rising unemployment (1). Award one mark for each basic point, plus a second mark if point is developed.	Reasons that don't relate to the changes in Fig 5. One word answers such as 'the internet'.	2

Question Number	Indicative content
5 (b) QWC i,ii,iii	The two regions should contrast; likely choices include the South East / London region (services / finance), eastern England (farming), the south west (fishing / tourism) or manufacturing regions such as the Midlands and North West. Industrial structure • Expect details of the balance of P/S/T/ Q industry such as the financials services dominated SE/London versus farming in the East of England. • Quaternary areas such as the M4 corridor could be mentioned and contrasted with secondary industry in northern regions. Reasons could relate to: • Industrialisation and deindustrialisation trends • Core and periphery ideas – links to Europe in London / SE • Reasons for growth / decline of particular sectors

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-3	Identifies two regions but the contrast may not be clear. Limited details on structure. Some structure to the answer and some relevant

		use of geographical terminology.
Level 2	4-6	The response refers to structure in some detail; two contrasting regions are referred to but some of the detail is generalised. Some comparisons made with some reasons suggested for why structure is different. Clear structure, clearly communicated with relevant use of geographical terminology.
Level 3	7-8	Detailed comparison of two contrasting regions. Industrial structure is examined in detail and there is reference to specific sectors and possibly employment characteristics, as well as reasons for the differences in structure. Clear structure, well communicated with excellent use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Reject	Mark
6 (a) (i)	- Bristol's population fluctuates (1) between 425, 000 and 380,000 (1). - Grows slightly overall (1) so highest in 2011 at 425,000 (1) - Lower in the middle of the period i.e. 1981-2001 Award one mark for a basic description of the trend plus 1 mark for accurate use of data.	Reference to Liverpool.	2

Question Number	Acceptable Answers	Reject	Mark
6 (a) (ii)	The population falls because: - Deindustrialisation caused a loss of jobs (1) and many people are likely to have migrated away to look for work (1) - As the area declines, a spiral of decline set in (1) so more people left / people / businesses were not attracted to the area (1).	Reference to 2011.	2

	· Linked problems such as crime may have contributed to out migration (1) and counter-urbanisation (1). · Ageing population = low birth rate (1). Award one mark for each basic point, plus a second mark if point is developed.		

Question Number	Indicative content
6 (b) QWC i,ii,iii	The exact nature of the answer will depend on the areas chosen, but expect details of: Remoteness / mobility · Some areas are very remote and isolated e.g. Scottish Highlands; in these areas population density is so low there are few services (thresholds); distances and travel costs are large (contributing to income deprivation) and choice is low (limited education opportunities / choice of schools); out-migration reduced demand for services even more. Jobs / economic issues · Some rural areas have seen jobs decline e.g. in fishing and farming (mechanisation) and not been replaced by other jobs (tourism), so opportunity remains low; jobs are often low paid and part time / seasonal adding to income deprivation. Links to urban areas / counter-urbanisation · Other rural areas are close to urban ones (East Anglia; home counties) so people can commute and access high income jobs and services; often well served by road and rail links. May even be locations for businesses e.g. design, offices, finance that can be very footloose.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-3	Generalised answer in terms of location / areas; lacks focus on deprivation and rather more general differences; lack of explanation. Some structure to the answer and some relevant use of geographical terminology.
Level 2	4-6	Response uses two rural regions, and there is some focus on some aspects of deprivation and reason for this; variable detail and contrast may not be fully clear. Clear structure, clearly communicated with relevant use of geographical terminology.
Level 3	7-8	Detailed reference to two contrasting rural regions and appropriate detail used to illustrate a range of reasons for differences in levels of deprivation. Clear structure, well communicated with excellent use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context

		of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Acceptable Answers	Reject	Mark
7 (a) (i)	• Car use is higher in NY compared to MC (1). • 30% in NY compared to 21% in MC. (1) Award one mark for a basic comment on the difference and an extension mark for use of data.	Difference of around 10% (1)	Answers that do not refer to Fig 7. Reference to other transport types	2

Question Number	Acceptable Answers	Reject	Mark
7 (a) (ii)	Public transport use is higher in Mexico City, this could be because: • Public transport network may be better in Mexico City (1) or fares cheaper (1) so it is used more (1). • People in Mexico City are on average poorer (1) so cannot afford to use private cars / car ownership is lower / public transport is cheaper (1). • Congestion makes using a car more difficult in Mexico City (1); distances / parking means car use is impractical (1) • Credit knowledge that car use in restricted by number plate in Mexico City (1) Award one mark for each basic point, plus a second mark if point is developed.	Reference to the other types of transport on Fig 7. Detailed statistical answers that lack reasons.	2

Question Number	Indicative content
7 (b) QWC i,ii,iii	Reference could be made to a number of different cities and strategies e.g. London: • Reducing transport pollution with the introduction on the Congestion Charge which has had some success at reducing traffic volumes • London's Low Emission Zone which bans the most polluting vehicles from the city in order to improve air quality • Attempts to increase cycling with a network of cycle routes and 'Boris bikes' similar schemes are also used in cities such as Denver

Level	Mark	Descriptor
		• Underground systems could also be considered e.g. extensions such as the Jubilee line or even Crossrail to encourage more people to use public transport • The introduction of cleaner vehicles such as buses and infrastructure for electric cars e.g. charging points • Masdar City – and other eco-cities, which are planned from scratch to be as low pollution as possible, but which are costly to implement.
Level 0	0	No acceptable response.
Level 1	1-3	Response outlines some attempts to reduce pollution in cities but these are of a general nature; success is not considered. Some structure to the answer and some relevant use of geographical terminology.
Level 2	4-6	Response examines several attempts to reduce pollution with reference to a named city but with variable detail; success in implied. Clear structure, clearly communicated with relevant use of geographical terminology.
Level 3	7-8	Response examines several attempts to reduce pollution in a named city with reference to appropriate detail and a consideration of success. Clear structure, well communicated with excellent use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Question number	Correct Answer	Acceptable Answers	Reject	Mark
8 (a) (i)	• In 1980 all income came from food production (1) whereas in 2010 this fell to 50% (1) • Retail now accounts for 20% of income (1)	The farm has become 100% organic in 2010 in terms of food production; there was no organic in 1980.	Listing data without reference to diversification.	2

	• Leisure has increased (1) from 0% to 30%. Award one mark for each basic point and an additional mark for use of data.			

Question Number	Acceptable Answers	Reject	Mark
8 (a) (ii)	• The farm has undergone diversification between 1980 and 2010 (1) • Because of the need to have a broader / more secure set of income streams (1). • Rising prices for beef / better organic prices (1) • Less money in farming, more income / valued added to be earned from e.g. retailing (1). • Farmer gets income from production and sales in 2010 (1) • Credit the idea of falling prices for produce means other income is needed (1) or demand from the consumer for different products (organic, farm shops) (1). Award one mark for each basic point, plus a second mark if point is developed.	Ideas that the farm has been sold etc Answers must focus on reasons for diversification. Restatement of the change with no reason "there are holiday cottages now".	2

Question Number	Indicative content
8 (b) QWC i,ii,iii	A wide range of schemes could be discussed, but they must focus on the developing world: • micro-finance schemes such as the Grameen Bank and others, which provide small scale loans to start businesses and therefore improve income, especially among women. • mobile health services and mobile education, such as bare foot doctors, which aim to bring mobile services to isolated areas which would otherwise never receive then; very cost effective but can make a big difference. • fair-trade schemes such as the Kuapa Kokoo initiative in Ghana which uses the fair trade premium to improve village services such as education and health • intermediate technology to reduce soil erosion and improve water supply - such as pumpkin tanks and magic stones; these can improve health, farm production and income.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1-3	Response describes some schemes in general terms, but lacks details and locations; the impacts on people / quality of life are not considered. May lack a developing world focus. Some structure to the answer and some relevant use of geographical terminology.

Level 2	4-6	Response outlines a number of schemes, which are located and there are some details; some impacts on quality of life are considered so success is implied. Clear structure, clearly communicated with relevant use of geographical terminology.
Level 3	7-8	Response uses detailed, located examples of a range of schemes with a clear focus on how successful these have been; improvements to quality of life are examined. Clear structure, well communicated with excellent use of geographical terminology.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Pearson Edexcel GCSE

Centre Number

Candidate Number

Geography B
Unit 3: Making Geographical Decisions

Foundation Tier

Sample Assessment Material
Time: 1 hour 30 minutes

Paper Reference
5GB3F/01

You must have:
Resource Booklet (enclosed)

Total Marks

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 53.
- 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.

Turn over ▶

Answer ALL questions.

Some questions must be answered with a cross in a box ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

1 Study Section 1 (pages 2–4) of the Resource Booklet and answer the following questions.

The following questions are multiple choice. Put a cross in the box of the answer that you select. **There is only one correct answer to each question.**

(a) (i) Which of the following statements is correct?

(1)

☒ **A** Most Icelanders live in the south-east of the country

☒ **B** Most Icelanders live in the north-east of the country

☒ **C** Most Icelanders live in the south-west of the country

☒ **D** Most Icelanders live in the north-west of the country

(ii) Which of the following statements is correct?

(1)

☒ **A** Only the area around the capital is growing

☒ **B** The central region of Iceland is growing fastest

☒ **C** Most coastal regions of Iceland are growing

☒ **D** Most rural regions have a declining population

(iii) Which of the following statements is correct?

(1)

☒ **A** Iceland's isolation helped it to become very wealthy

☒ **B** Iceland is better connected because of air travel

☒ **C** Iceland is less isolated because of plate tectonics

☒ **D** Iceland is less rich now that it is better connected

(b) Study Figure 1d.

Identify **two** reasons why farms such as this one remain quite isolated.

(2)

1 ....

....

2 ....

....

(c) Outline **two** reasons why population growth rates vary from place to place in Iceland.

(4)

1 ....

....

....

....

2 ....

....

....

....

(Total for Question 1 = 9 marks)

2 Study Section 2 (pages 5 and 6) of the Resource Booklet and answer the following questions.

Figure 2a shows the changes in Iceland's GDP per person between 1980 and 2014.

The following questions are multiple choice. Put a cross in the box of the answer that you select. **There is only one correct answer to each question.**

(a) (i)   In which period did GDP per person rise fastest?

(1)

☒   **A**   2004–2008

☒   **B**   2006–2012

☒   **C**   2007–2011

☒   **D**   2000–2004

(ii) Which of the following is correct?

(1)

☒   **A**   GDP per person halved between 1980 and 2014

☒   **B**   GDP per person increased by more than $30,000 between 1980 and 2014

☒   **C**   GDP per person increased in every year between 1980 and 2014

☒   **D**   GDP per person rose by $20,000 between 1980 and 1990

(b) Outline **one** reason why GDP per person fell between 2008 and 2010.

(2)

....

....

....

....

(c) Study Figure 2b which shows Iceland's economic structure.

(i) Identify **two** of Iceland's industries that are in the **primary** sector.

(2)

1 ....

2 ....

(ii) State the percentage of people working in the **secondary** sector.

(1)

....

(iii) Identify the **tertiary** sector that contributes most to Iceland's GDP.

(1)

....

(d) Outline **two** reasons why agriculture is such a small part of Iceland's economy.

(4)

1 ....

....

....

2 ....

....

....

Study Figure 2c which shows Iceland's export earnings between 2000 and 2010.

(e) Describe the changes in Iceland's export earnings over this period.

(4)

....

....

....

....

....

....

....

....

(Total for Question 2 = 16 marks)

3 *(a) Study Section 3 (pages 7 and 8) in the Resource Booklet and answer the following questions.

Study Figures 3a and 3b which show changes in Iceland's sources of energy between 1940 and 2008 and how that energy is used.

Explain the importance of renewable energy for Iceland.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(b) Using Figure 3c (page 8), describe the possible impacts on the environment of expanding Iceland's production of electricity.

(5)

....

....

....

....

....

....

....

....

....

....

(Total for Question 3 = 11 marks)

4 Study the photographs in Section 4 (page 9) in the Resource Booklet. You may also use information from other pages in the Resource Booklet.

(a) Outline **one** impact on the local environment of building aluminium plants such as the one shown in Figure 4b.

(2)

....

....

....

(b) Describe how the growth of whale watching might help local communities.

(3)

....

....

....

....

....

....

(Total for Question 4 = 5 marks)

Spelling, punctuation and grammar will be assessed in your answer to this question.

*5 Study the two options for Iceland's government and people shown below.

> **Option 1: Continue to expand Iceland's energy production**

> **Option 2: Stop any future plans for energy expansion and develop other sectors instead**

Select **one** option that you think would be best for the Icelandic people.

Explain the advantages of this option for the Icelandic people.

- Use information from the **Resource Booklet and your knowledge from Units 1 and 2** to support your answer.

(9)

Chosen option ....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 5 = 12 marks)

TOTAL FOR PAPER = 53 MARKS

5GB3F Mark Scheme

Question Number	Correct Answer	Reject	Marks
1(a)(i)	C = Most..south-west	All other answers.	1

Question Number	Correct Answer	Reject	Marks
1(a)(ii)	D = Most rural regions have a declining population	All other answers.	1

Question Number	Correct Answer	Reject	Marks
1(a)(iii)	B = Iceland is better connected because of air flights	All other answers.	1

Question Number	Correct Answers	Marks
1 (b)	Because of: • Potential for travel disruption from eruptions (1) • Potential for travel disruption from glacial events (1) • Declining rural population so fewer neighbours (1) • Because transport is still disrupted by weather/climate (1)	2 x 1

Question Number	Correct Answers	Reject	Marks
1(c)	One mark for each correct point (or allow one mark for one point plus one for development). Any of the following. • Because living in some regions is very difficult harsh so people move(1) example/detail of same (1) • Because education available in Reykjavik (1) so migration (1) • Lack of jobs in many rural areas so people move (1) example of this (1) • Variations in birth rate (1) reflecting older population in rural areas (1) Plus other points on merit.		2 x 2

Question Number	Correct Answer	Reject	Marks
2(a)(i)	A = 2004-2008	All other answers	1

Question Number	Correct Answer	Reject	Marks
2(a)(ii)	B = GDP per capita increased by more than $30,000...	All other answers	1

Question Number	Correct Answer	Marks
2 (b)	The banking sector collapsed (1) so huge debts were incurred (1)	2 x 1

Question Number	Correct Answer	Marks
2(c)(i)	Any of the following • Agriculture (1) • Fishing (1)	1

Question Number	Correct Answer	Acceptable answer	Marks
2(c)(ii)	• 22% (Alumina and Building)	11% as not all candidates will include "building" as part of the secondary sector.	1

Question Number	Correct Answer	Marks
2(c)(iii)	Financial, insurance...	1

Question Number	Correct Answers	Reject	Marks
2(d)	• Climatic problems (1) details of same (1) • Lack of fertile soils (1) details of same (1) • Other jobs more rewarding (1) detail of same (1)	Any other sector	2 x 2

Question Number	Correct Answers	Reject	Marks
2(e)	Any accurate description of an export e.g. marine products have fallen (1) data and detail to support e.g. rate of change or data to support (1) Comparative comments (1) data to support (1) So 3 different sectors to describe with data	Explanations	2 x 2

Question Number	Correct Answer		
3 * (a)	Need to recognise Geothermal and Hydropower as renewables. • Hydropower gradual rise since 1940s • Sharp rise in early 2000s • Geothermal rose fast in 1980s and again in late 1990s early 2000s • Geothermal largest Explanation likely to cover; • Because of the aluminium industry • Which uses large quantities of power • By far the largest user • Data from 3b • Living standards have risen so more energy used - Data to support above		

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1–2	Identifies at least one renewable energy source. Some description of its importance but without any examination of **why** it is. Basic use of geographical terminology and weak structure; spelling, punctuation and grammar weak or inaccurate.
Level 2	3–4	Describes both major renewable sources; at least one with some data to help describe its importance. Resource Booklet used but also some imported K and U from Units 1 and 2. A little explanation but largely asserted. Clearly communicated with a limited but accurate use of geographical terminology, a clear structure but some errors in spelling, punctuation and grammar.
Level 3	5–6	Describes both major renewable sources; both with good supportive data. Explanation of importance recognises changes over time. Resource Booklet used well with useful imported K and U from Units 1 and 2. Well communicated with an accurate use of extensive geographical terminology, a good structure with few errors in spelling, punctuation and grammar.

Question Number	Correct Answer	Acceptable Answers	Marks
3 (b)	• Many valleys affected (1) • Wilderness no longer wilderness – or equivalent idea (1) • High-tension cables – visual impact (1) • Areas around new geothermal power stations affected (1) • Production of more power for aluminium impacts on eco-footprint (1) • Data and/or detail to support any **two** points (1+1)	Might also use 4a to illustrate environmental impact (1)	5 x 1

Question Number	Correct Answers	Acceptable answer	Marks
4 (a)	Explanation requires link between factory and surrounding environment to be made. Expect one basic idea (1) plus development to make that link (1) and one other point (1) • Building a large factory uses a lot of space (1) so disrupts habitat (1) • Infrastructure – roads etc. also disrupt habitat (1) • Produces waste (1) which has to go somewhere (1) • Produces greenhouse gases (1) which affect all of the environment eventually (1)	• Dependent on H-E-P so environmental impact of the dams (1)	2 x 1

Question Number	Acceptable Answers	Reject	Marks
4 (b)	Allow basic point which is likely to be: Allows survival of remote communities or equivalent ideas (1) and then development through explanation as in – creating jobs for locals(1) with increased local incomes (1) possible multiplier effect (1) examples of same such as retail sector, local farms (1)	Environmental points	3

Question Number	Indicative content
*5 QWC i-ii-iii	Good answers will use material from the Resource Booklet and knowledge and understanding from Unit 1 and Unit 2 to explain specific/detailed challenges, and will develop points. At the top end, points will be well developed with detail and/or data and information from the booklet e.g. energy data/economic data Option 1 – Continue to expand Iceland's energy production • At a national level it will make money (data to support) – which Iceland is desperate for after the 'crash' (data to support) – it has potential customers - Google /TNCs for aluminium smelting – might one day be able to export the power by cable • Don't have any choice arguments – declining fish exports (data to support) • At a local level – it will create jobs (data to support) – preventing the further population decline of remote regions (data to support) – so also preventing Iceland = Reykjavik scenarios (data to support) • Allow counter –argument against possible objections e.g. – the environment isn't that badly affected – it's a big place – doesn't compromise other activities – tourism might be affected by volcanic eruptions Option 2 – Halt any future plans and develop other sectors instead • Iceland has a unique landscape (facts/data to support) – the production of power threatens this (data and detail to support) – so threatens other industries, notably tourism – which is much less damaging to environment (detail to support) • Aluminium smelting is controlled by foreign companies (detail to support) –

		profits would probably leave Iceland – same if Google came - Aluminium smelting produces greenhouse gases making Iceland's eco-footprint huge
	•	Icelanders have more than enough energy to meet their own needs – it is sustainable – they are very wealthy **without** further development (data and detail to support) – what if aluminium demand fell?

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1–3	States at least one simply stated advantage. No obvious explanation of why this is beneficial for either people or the environment other than an assertive statement. Basic use of geographical terminology and weak structure; spelling, punctuation and grammar weak or inaccurate.
Level 2	4–6	Sound description of at least two advantages using some evidence to develop statements, e.g. 'Iceland will increase its wealth above $50,000 per capita...'. Clear attempt to explain impact on Iceland importing a little K and U from Units 1 and 2. Clearly communicated with a limited but accurate use of geographical terminology, a clear structure but some errors in spelling, punctuation and grammar.
Level 3	7–9	Good description of more than two advantages using evidence to develop statements fully, e.g. 'Developing tourism is far less damaging for the environment as remote valleys are kept unspoilt'. Strong attempt to explain impact on either people or environment importing good K and U from Units 1 and 2. Well communicated with an accurate use of extensive geographical terminology, a good structure with few errors in spelling, punctuation and grammar.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG Level 1	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

**Pearson
Edexcel GCSE**

Geography B

Unit 3: Making Geographical Decisions

Higher Tier

Sample Assessment Material
Time: 1 hour 30 minutes

Paper Reference
5GB3H/01

You must have:
Resource Booklet (enclosed)

Total Marks

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 53.
- 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.

Turn over ▶

PEARSON

Answer ALL questions.

1 Study Section 1 of the Resource Booklet (pages 2 to 4) and answer the following questions.

(a) Study Figure 1a.

Describe the location of Iceland.

(3)

....

....

....

....

....

....

(b) Study Figure 1b.

Describe the distribution of Iceland's population.

(3)

....

....

....

....

....

....

(c) (i) Study Figure 1c.

Outline the changes in Iceland's population distribution between 2001 and 2010.

(4)

....

....

....

....

....

....

....

....

....

(ii) Explain these changes in the distribution of Iceland's population.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 1 = 16 marks)

2 Study Section 2 of the Resource Booklet (pages 5 and 6) and answer the following questions.

(a) Describe the changes in Iceland's GDP per person between 1980 and 2014.

(3)

....

....

....

....

....

....

(b) Compare the importance of primary and secondary industry in the economy of Iceland.

(3)

....

....

....

....

....

....

(c) Suggest **two** reasons why the tertiary sector might become more important in the future.

(2)

1 ....

....

2 ....

....

(d) Compare the contribution of fish and aluminium to Iceland's export earnings.

(3)

....

....

....

....

....

....

(e) Iceland has a very high GDP per person.

To what extent are its economic structure and exports typical of developed countries?

(4)

....

....

....

....

....

....

....

....

(Total for Question 2 = 15 marks)

S 4 5 1 4 0 A 0 5 0 9

*3 Study Section 3 in the Resource Booklet (pages 7 and 8) and answer the following question.

Examine why Iceland's production and use of energy have changed.

(6)

....

....

....

....

....

....

....

....

....

....

....

....

(Total for Question 3 = 6 marks)

4 Study the photographs in Section 4 (page 9) in the Resource Booklet and answer the following question.

Contrast the possible impacts of the aluminium and tourist industries on local communities.

(4)

....

....

....

....

....

....

....

(Total for Question 4 = 4 marks)

Spelling, punctuation and grammar will be assessed in your answer to this question.

*5 Study the two options for Iceland's government and people shown below.

> **Option 1: Continue to expand Iceland's energy production**

> **Option 2: Halt any future plans for energy expansion and develop other sectors instead**

Select the option that you think would be best for the Icelandic people and the Icelandic environment.

Examine the advantages and disadvantages of this option for the Icelandic people and environment.

Use information from the Resource Booklet **and your knowledge from Units 1 and 2** to support your answer.

Chosen option ....

(9)

S 4 5 1 4 0 A 0 8 0 9

....

....

....

....

....

....

....

....

....

....

....

....

(Total for spelling, punctuation and grammar = 3 marks)

(Total for Question 5 = 12 marks)

TOTAL FOR PAPER = 53 MARKS

Question Number	Correct Answer	Marks
1(a)	• On the mid- Atlantic ridge (1) • North American plate and Eurasian plate (1) • In the North Atlantic (1) • Just outside the Artic Circle (1) • About 1000km from Scotland (1) • Closest to Greenland (1) • Use of data (1)	3

Question Number	Correct Answer	Marks
1(b)	• Very uneven (1) • Most in the south-west • Entirely coastal (1) • Empty interior (1) • Data to support any **one** point (1)	3

Question Number	Correct Answer	Marks
1(c)(i)	• Rapid growth in south west/Reykjavik (1) • Rapid growth in some eastern areas (1) • Limited growth in some northern areas (1) • Losses everywhere else (1) • Especially severe in north-west (1) • Data to support any **one** point (1)	4

Question Number	Correct Answer
1(c)(ii)	Decline in many rural areas as a result of out migration – reasons include • Very isolated or equivalent - example of same • Difficult physical environment - that restricts opportunities • Lack of jobs • Lack of variety of employment Rise of south west because of in-migration • Reykjavik is capital – multiplier effect • Banking boom in recent past • Keflavik – most arrive there – including tourists • Geothermal fields are there so lots of energy • Younger population so natural increases is greater too Rise of east almost entirely explained by Fjardaal smelter (see Figure 4b) Reward intelligent extension form Unit 1 and Unit 2 e.g. • Less hazardous in south west • Bigger range of jobs in city • Education available in city • 'Bright Lights' for young people

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1–2	Identifies and describes at least one reason for change. Explanation is simple statement of in-out migration.
Level 2	3–4	Describes at least two aspects of change; at least one with some data to help describe its importance. Resource Booklet used but also some imported K and U from Units 1 and 2. Explanation

		includes migration but builds on this with one other factor causing that movement.
Level 3	5–6	Describes several aspects of recent changes; with good supportive data. Explanation of changes over time covers both rural decline and reasons for growth. Resource Booklet used well with useful imported K and U from Units 1 and 2.

Question Number	Correct Answer	Marks
2(a)	- It has risen (1) - At an accelerating/exponential/increasing rate (1) - Sharp decline 2008-2010 (1) - Risen again since that (1) - Data to support any **one** point (1)	3

Question Number	Correct Answer	Marks
2(b)	- Recognition that agriculture is primary (1) - Recognition that fishing is primary (1) - Recognition that Industry is secondary (1) - May recognise that building sector is part of secondary (1) - Comparison is that secondary sector much large than primary (1) - Data to support any one of above (1) (note that secondary might be either 11% or 12% depending on inclusion/exclusion of building sector) Note – Has to make a **comparative** comment for full marks.	3

Question Number	Correct Answer	Marks
2 (c)	- Tourism might become more important (1) - Data processing is a tertiary industry – this might increase (1) - Banking might recover – rise again (1)	2

Question Number	Correct Answer	Marks
2 (d)	- Fish has declined in significance (1) - Aluminium has increased in significance (1) - They more or less 'mirror' each other (1) - So Fish started as significantly more important but now Aluminium is more important (1) - Data to support any **one** point (1) Note – must note changeover of 'top-spot' for full marks	3

Question Number	Correct Answers	Marks
2(e)	Cliché of developed countries is as follows; • Tertiary dominates • Primary unimportant • Manufacturing significant but declining Iceland has; • Strong tertiary sector so 'normal' • Weak manufacturing sector so abnormal – but allow normal (when compared to UK) • Relatively strong primary – abnormal Exports • Tourism is very significant – unusual for developed countries • Primary exports significant – unusual but not unique (Australia) • Manufacturing is basic capital intensive – not consumer products – unusual Look for any one legitimate point (1) with detail/date evidence to support (1) x2 Note – should come to a view for all 4 marks – e.g. - yes it is typical or - no it isn't - but expect conclusion to follow from content.	4

Question Number	Correct Answer
*3	Need to recognise key elements dominated by Geothermal, Hydropower and Oil. Two sets of data available but might also use 2c. • Hydropower gradual rise since 1940s • Sharp rise in early 2000s • Geothermal rose fast in 1980s and again in late 1990s early 2000s • Geothermal largest • Coal once had a role but not now • Oil pretty constant – used for transport *(once for heating)* Explanation which should focus on changes is likely to cover; • The role of the aluminium industry • Which uses large quantities of power • By far the largest user • Data from 3b • Living standards have risen so more energy used • Especially for residential uses in Reykjavik and surrounding areas • Geothermal produces power for heating and lighting • Oil for transport although opportunity of developing hydrogen *(because of cheap electricity)* 'Examine' requires a description, explanation and an assessment .

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1–2	A limited description of Iceland's energy mix. Very limited idea of changes – perhaps one reference to one change. Explanation limited to one simple statement but weakly linked to change(s). Basic use of geographical terminology and weak structure; spelling, punctuation and grammar weak or inaccurate.
Level 2	3–4	A fair description of Iceland's energy mix with at least two sources addressed. Some idea of changes developed –at least two changes

		explored; one in some detail. Resource Booklet used but also some imported K and U from Units 1 and 2. Clearly communicated with a limited but accurate use of geographical terminology, a clear structure but some errors in spelling, punctuation and grammar.
Level 3	5–6	A good description of Iceland's energy mix with at least three sources addressed. Range of changes developed –at least three changes explored; two in some detail. Resource Booklet used well with useful imported K and U from Units 1 and 2. Well communicated with an accurate use of extensive geographical terminology, a good structure with few errors in spelling, punctuation and grammar.

Question Number	Correct Answers	Marks
4	Explanation requires link between factory/tourist development and local community to be made. Expect one basic idea (1) plus development to make that link (1) and one other point (1) Aluminium smelter • Building a large factory creates jobs in construction (1) which brings money into local community (1) • Infrastructure – roads etc. need to be built (1) so more jobs (1) • There are other jobs created (1) multiplier/cumulative causation idea or example of same e.g. more teachers needed (1) Whale watching – though may be others Likely to be survival. Expect one basic idea (1) plus development to make that link (1) • Very remote fishing communities have lost population (1) this might bring it back/keep it stable or equivalent idea (1) • Once again some multiplier effect (1) example of same (1) Allow to 3 if impacts described for both but reserve 4th mark for 'contrast' as in 'one more important than other or equivalent'	4

Question Number	Indicative content
*5 (a) QWC i-ii-iii	Good answers will use material from the Resource Booklet and knowledge and understanding from Unit 1 and Unit 2 to explain specific/detailed challenges, and will develop points. At the top end, points will be well developed with detail and/or data and information from the booklet e.g. energy data/economic data Option 1 – Continue to expand Iceland's energy production • At a national level it will make money (data to support) – which Iceland is desperate for after the 'crash' (data to support) – it has potential customers - Google /TNCs for aluminium smelting – might one day be able to export the power by cable so avoid dependency on TNCs and reduce greenhouse ags emissions • Don't have any choice arguments – declining fish exports (data to support) • At a local level – it will create jobs (data to support) – preventing the further population decline of remote regions (data to support) – so also preventing Iceland = Reykjavik scenarios (data to support) • Allow counter –argument against possible objections e.g. – the environment isn't that badly affected – it's a big place – doesn't

compromise other activities – tourism might be affected by volcanic eruptions

But...
- Significant impact on Iceland's environment – greenhouse gas emissions – loss of environment which is Iceland's unique 'attraction' for tourism
- All the profits go to foreign companies – doesn't employ that many people **(see arguments for Option 2)**

Option 2 – Halt any future plans and develop other sectors instead

- Iceland has a unique landscape (facts/data to support) – the production of power threatens this (data and detail to support) – so threatens other industries, notably tourism – which is much less damaging to environment (detail to support)
- Aluminium smelting is controlled by foreign companies (detail to support) – profits would probably leave Iceland – same if Google came - Aluminium smelting produces greenhouse gases making Iceland's eco-footprint huge
- Icelanders have more than enough energy to meet their own needs – it is sustainable – they are very wealthy **without** further development (data and detail to support) – what if aluminium demand fell?

But...
- Is this significant – tourism isn't that significant as an 'export' industry – also very dependent on the future – a notoriously variable industry and Iceland might have another eruption **(see arguments for Option 1)**

Note – the question requires something to be said about both the people and the environment.

Level	Mark	Descriptor
Level 0	0	No acceptable response
Level 1	1–3	States at least one simply stated advantage and disadvantage . No obvious explanation of why this is beneficial or cost for either people or the environment other than an assertive statement. Basic use of geographical terminology and weak structure; spelling, punctuation and grammar weak or inaccurate.
Level 2	4–6	Sound description of at least two advantages and one disadvantage using some evidence to develop statements, e.g. 'Iceland will increase its wealth above $50,000 per capita...'. Clear attempt to explain impact on Iceland's people and its environment importing a little K and U from Units 1 and 2. Clearly communicated with a limited but accurate use of geographical terminology, a clear structure but some errors in spelling, punctuation and grammar.
Level 3	7–9	Good description of more than two advantages and at least two disadvantages using evidence to develop statements fully, e.g. 'Developing tourism is far less damaging for the environment as remote valleys are kept unspoilt'. Strong attempt to explain impact on either people or environment importing good K and U from Units 1 and 2. Might use counter-argument but will come to a view. Well communicated with an accurate use of extensive geographical terminology, a good structure with few errors in spelling, punctuation and grammar.
SPaG Level 0	0	Errors severely hinder the meaning of the response or candidates do not spell, punctuate or use the rules of grammar within the context of the demands of the question.
SPaG	1	*Threshold performance* Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any

Level 1		errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.
SPaG Level 2	2	*Intermediate performance* Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.
SPaG Level 3	3	*High performance* Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Pearson Edexcel GCSE

Geography B
Unit 3: Making Geographical Decisions

Paper 3F and 3H

Sample Assessment Material
Resource Booklet

Do not return the Resource Booklet with the question paper.

Instructions

- Read the information on the problem on Page 2 first.
- You are advised not to write for the first 30 minutes, read and make pencil notes only during this time.
- When reading make links with other topics you have studied in Unit 1 and Unit 2.

Turn over ▶

S45139A

PEARSON

Information on the problem

The problem

How should Iceland develop its economy?

- Some people and organisations believe that it should exploit its enormous potential for energy.

- Others believe that it should protect its environment and develop more sustainable solutions such as tourism.

- The government of Iceland must make a decision about the future.

Section 1 – Iceland – an introduction
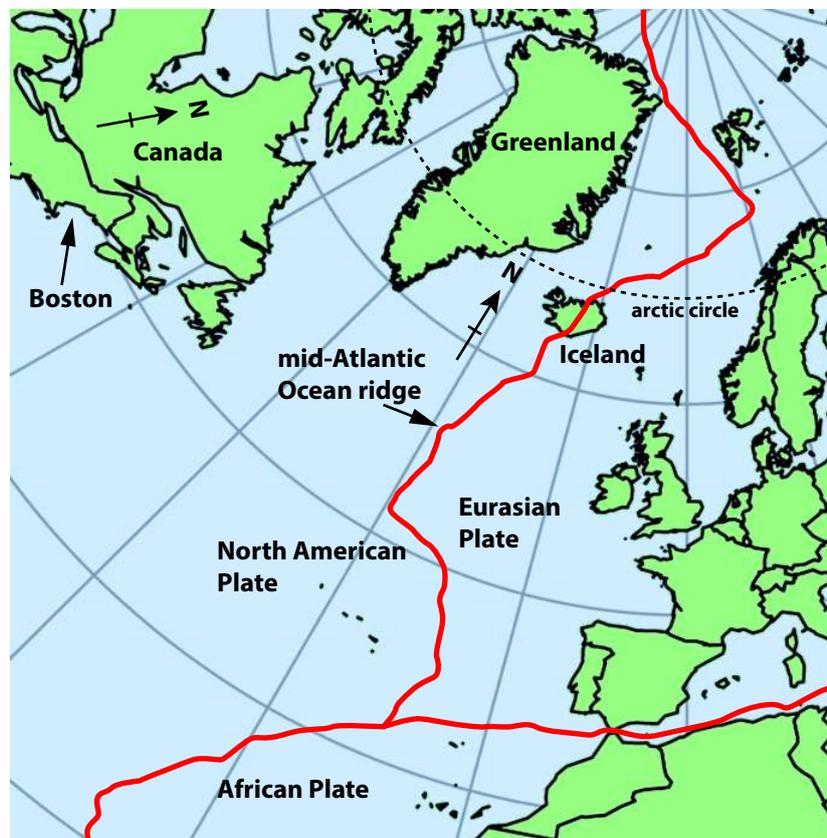
Figure 1a – **Iceland is located on the mid-Atlantic ocean ridge – Scotland is over 1000 km away**
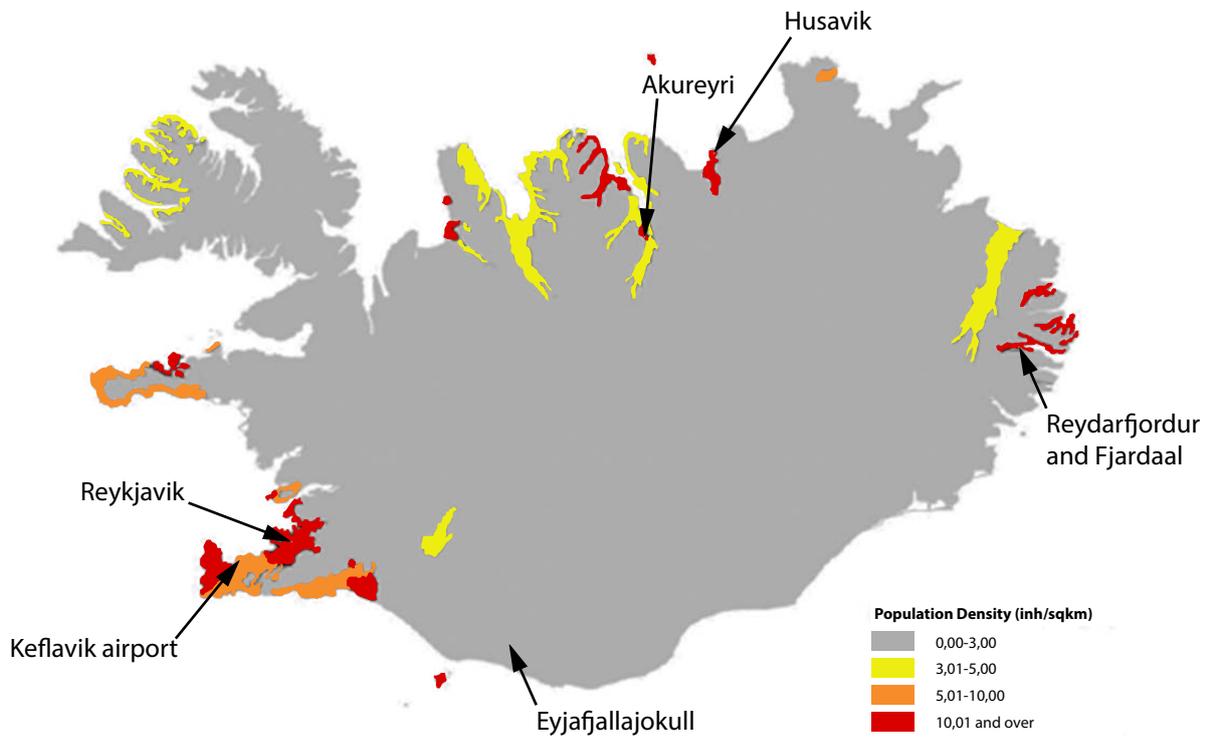
(Source: © European Environment Agency)

Figure 1b – Iceland's population density

Population Density (inh/sqkm)

- 0,00-3,00
- 3,01-5,00
- 5,01-10,00
- 10,01 and over

Population relative growth by municipalities (%)

- \> 17.6
- 15.1–17.5
- 12.6–15.0
- 10.1–12.5
- 7.6–10.0
- 5.1–7.5
- 2.6–5.0
- 0–2.5
- 0–-2.5
- -2.6–-5.0
- -5.1–-7.5
- -7.6–-10.0
- -10.1–-12.5
- -12.6–-15.0
- -15.1–-17.5
- \> -17.6

The Municipalities' Central Highland Planning Area and National Park in Hornstrandir (no residence)
Boundaries of Municipalities
Main Roads
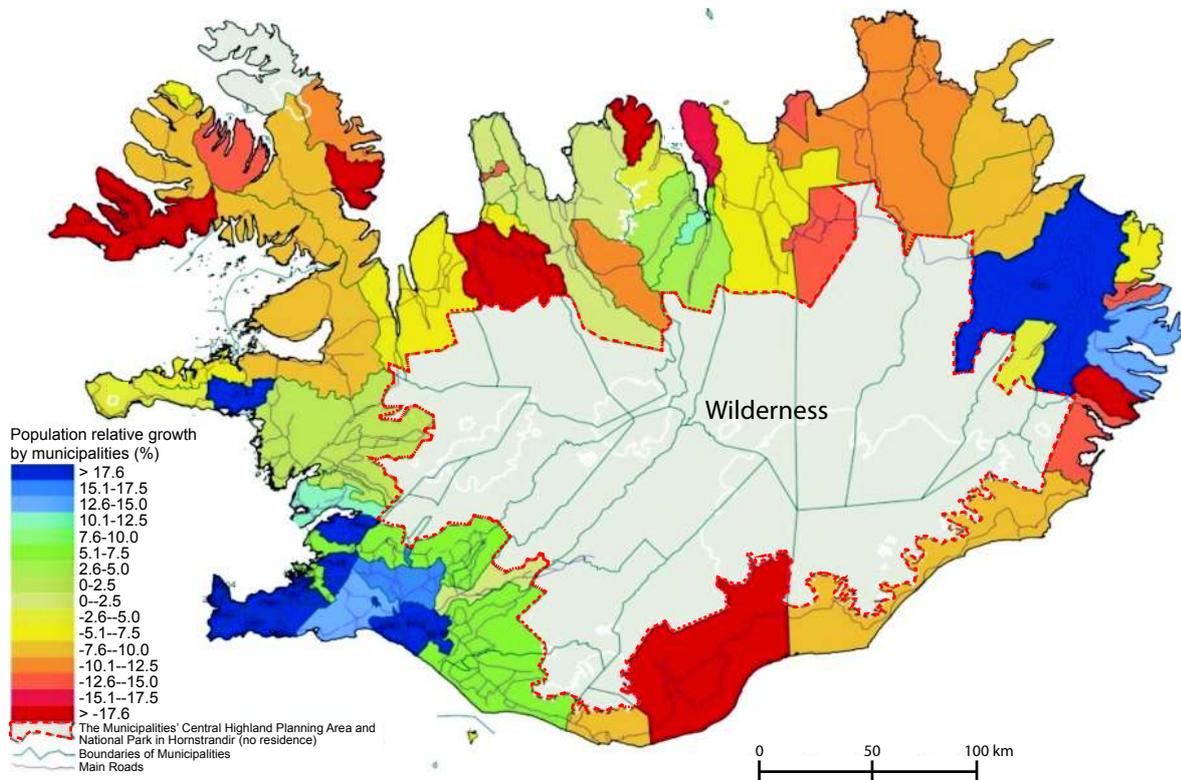
Figure 1c – Population change in Iceland 2001–2010

- Iceland is the most sparsely populated country in Europe.

- It was settled in the 10th century and remained isolated for many centuries because of its geographical position (Figure 1a).

- Today, around 320,000 people live in a country almost the size of England.

- The vast majority of people, around 240,000, live in and around Reykjavik, the capital.

- Many rural regions are losing population (Figure 1c), especially young people, because of a lack of jobs.

- Central Iceland is uninhabited; it is Europe's largest wilderness.

- It also possesses Europe's largest ice sheet, Vatnajokull (Figure 3c), and many active volcanoes.

- 100 years ago Iceland's population was largely rural, isolated and very poor.

- Today, 90% of all visitors arrive by plane at Keflavik airport.

- Just occasionally, as in April 2010, it can become 'isolated' again as eruptions disrupt flights (Figure 1d).

14 4 2010

Figure 1d – An isolated farm close to the Eyjafjallajokull volcano during the eruption in April 2010

Section 2 – Iceland's Economy
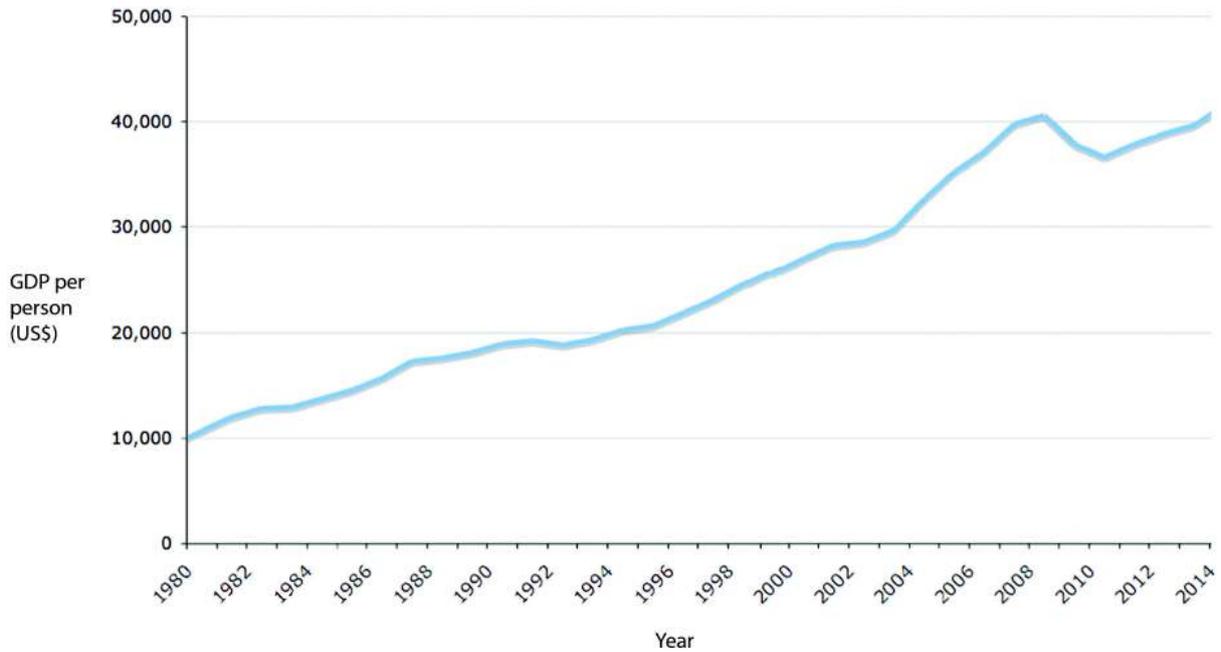
Figure 2a – Iceland's Gross Domestic Product (GDP) per person

- In 1901 Iceland was one of Europe's poorest economies.

- By 2000 Iceland was one of Europe's richest economies, first exporting fish and more recently increasing amounts of aluminium.

- In 2008 GDP per person fell as its banking sector collapsed, resulting in huge debts for the government.
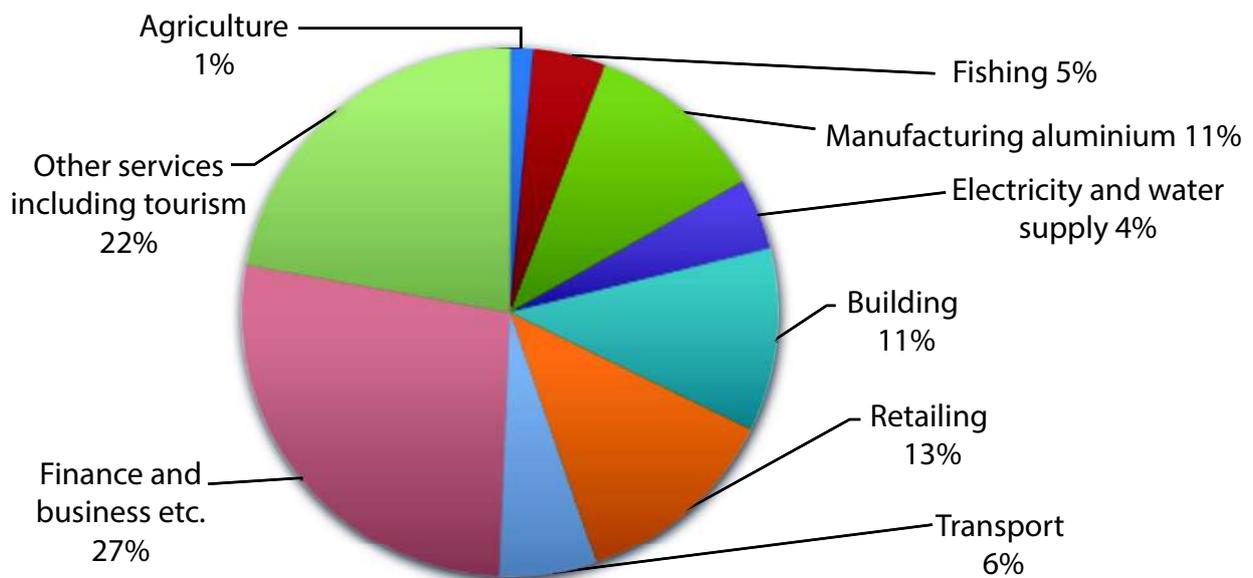
Figure 2b – Contribution of different sectors to Iceland's GDP

- Aluminium smelting requires large quantities of energy so it is located close to hydroelectric dams – it produces large quantities of greenhouse gases.

- Iceland hopes to use its cheap power to attract data storage facilities such as Google that also use a great deal of electrical power.

- Tourism is a growing part of Iceland's economy – in most years Iceland attracts about twice its own population as tourists.

- 70% of tourists choose Iceland because of its wilderness, its glaciers and its volcanic landscape.
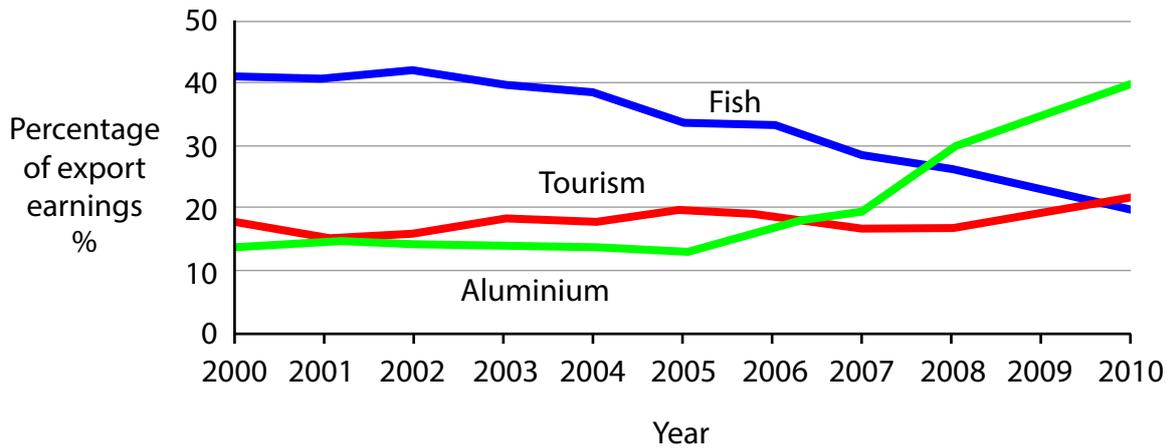
Figure 2c – The contribution of selected industries to Iceland's export earnings

Section 3 – Iceland's energy
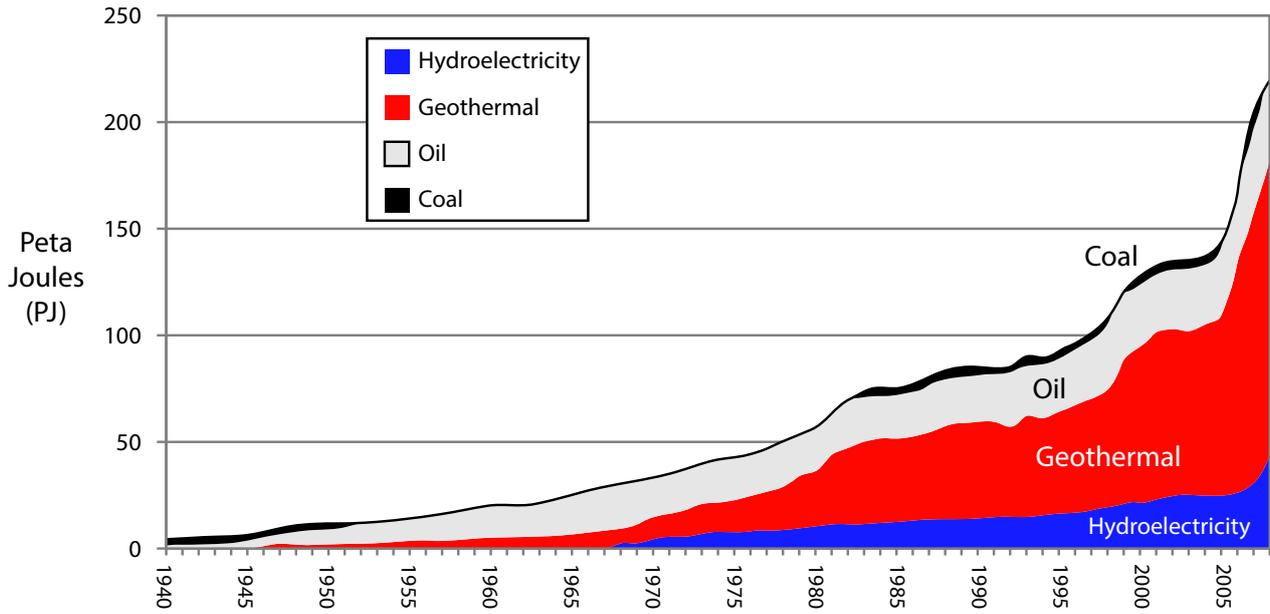
Figure 3a – Sources of Iceland's energy
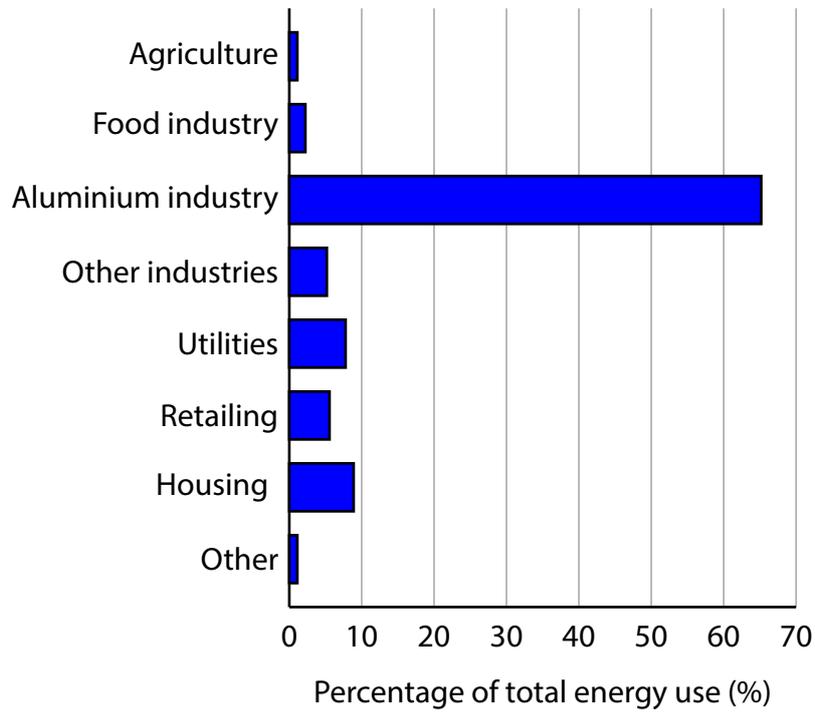
Figure 3b – How Iceland's energy is used
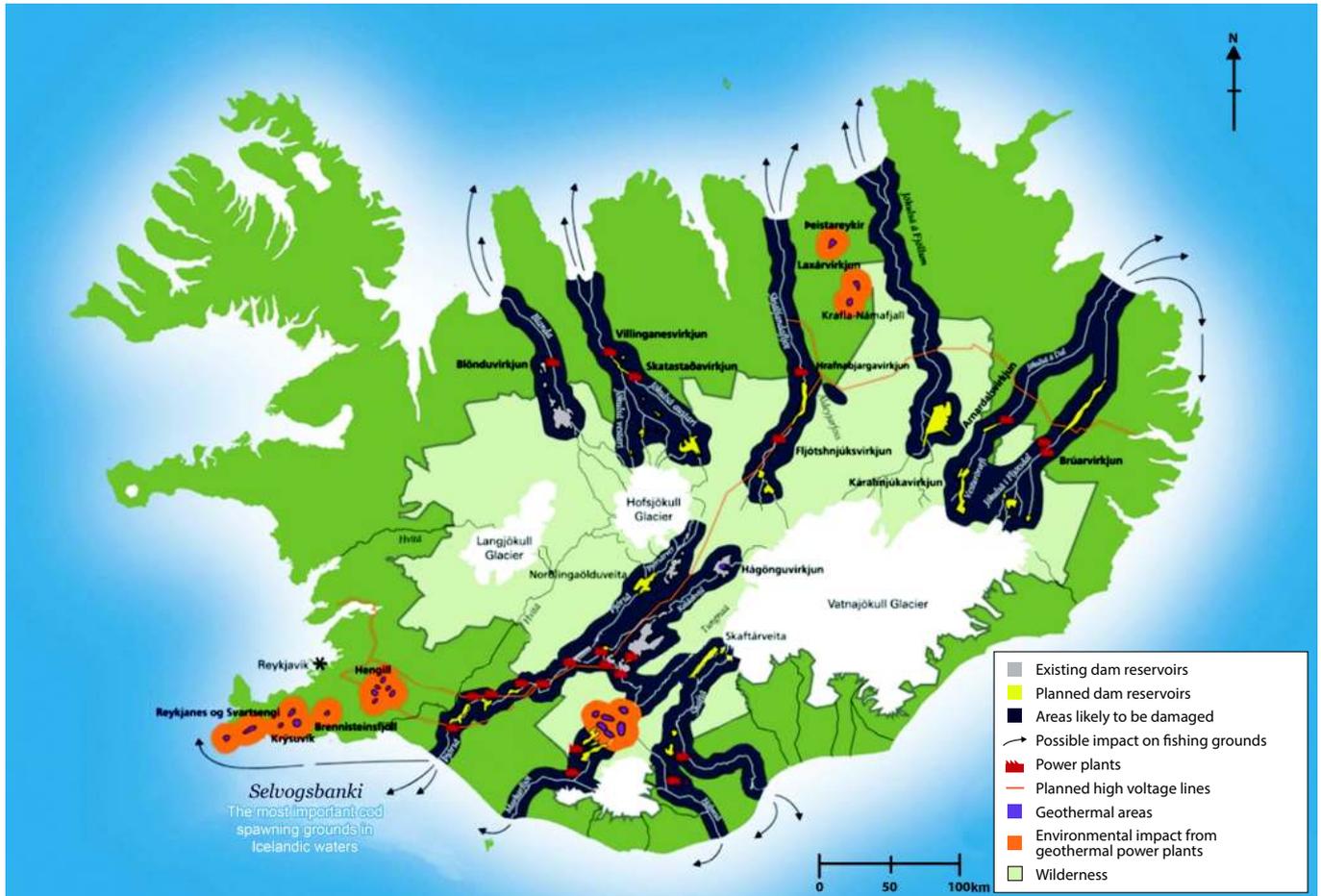
Figure 3c – Present and future impact of Iceland's energy development

- Iceland's energy production is dominated by renewable energy – geothermal and hydroelectricity.

- Largely self-sufficent in energy, Iceland still has to import oil for transport.

- Most of the geothermal energy is used for heating and lighting in Reykjavik.

- Most of the hydroelectricity is used by foreign transnational corporations (TNCs) to produce aluminium.

- There are plans to expand the energy production by building more dams for hydroelectricity. These dams will be built in remote areas, changing both the rivers and the landscape around them.

- Some opponents suggest that changes in the rivers will also affect the fishing industry badly.

- Power will be transmitted by overground power lines which have an impact on the landscape.

- It is hoped that technology will develop to allow Iceland to export its surplus electricity by undersea cable to Europe.

Section 4 – Iceland's changing economy and environment

Figure 4a – The dam built to provide power for Fjardaal under construction
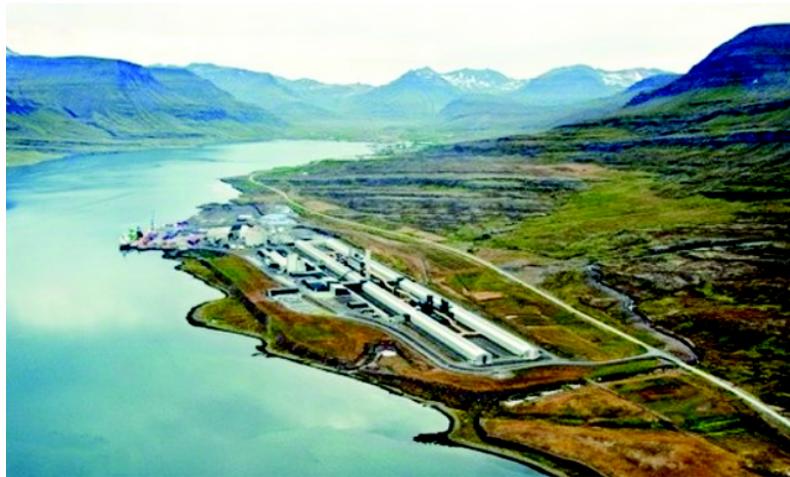
Figure 4b – The Alcoa aluminium plant at Fjardaal which employs 800 people

Figure 4c – Tourists whale watching at Husavik, an old fishing and whaling village

BLANK PAGE