Surname	Other	names
Pearson Edexcel evel 1/Level 2 GCSE (9–1)	Centre Number	Candidate Number
Geograph	v B	
		105
Paper 1: Global Geo		ies

### **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.
- Where asked you must **show all your working out** with **your answer clearly** identified at the end of your solution.

### Information

- The total mark for this paper is 94.
- The marks for **each** question are shown in brackets - use this as a guide as to how much time to spend on each question.
- The marks available for spelling, punctuation, grammar and use of specialist terminology 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 ▶



### **SECTION A**

### **Hazardous Earth**

Answer ALL questions in this section. Write your answers in the spaces provided.

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

**1** Study Figure 1.

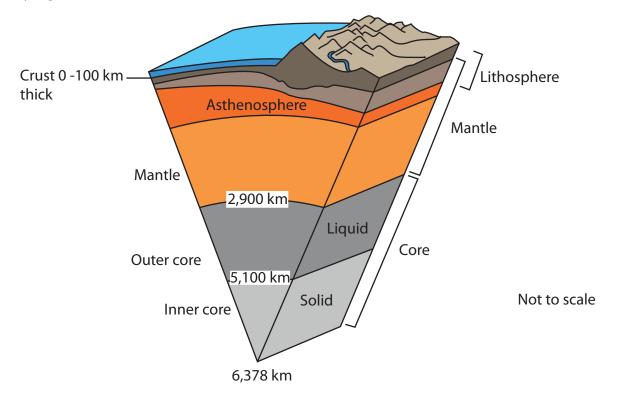


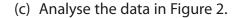
Figure 1
The Earth's layered structure

(a) (i) Identify which **one** of the following describes the outer core.

(1)

- A a liquid layer of 2 200 km in thickness
- **B** a solid layer with temperatures over 5000° Celsius
- C a layer of partly molten and partly solid rock
- **D** a solid layer of 1 300 km in thickness

(ii) S	tate v	which <b>one</b> of the Earth's layers has the highest density.	(1)
×	A	mantle	
×	В	crust	
×	C	inner core	
X	D	outer core	
(b) (i) E	xplair	n <b>one</b> cause of a tsunami.	(2)
(ii) lo	dentif	y <b>one</b> primary impact of tectonic hazards.	(1)
X	A	loss of employment	
$\times$	В	spread of disease	
×	C	destruction of buildings	
X	D	homelessness	



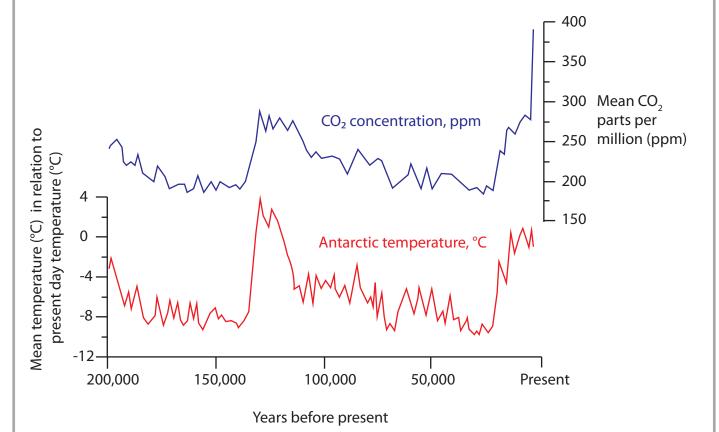


Figure 2

# ${\bf Mean\ Antarctic\ temperatures\ and\ atmospheric\ CO_{_2}\ concentration\ over\ the\ past\ 200,000\ years}$

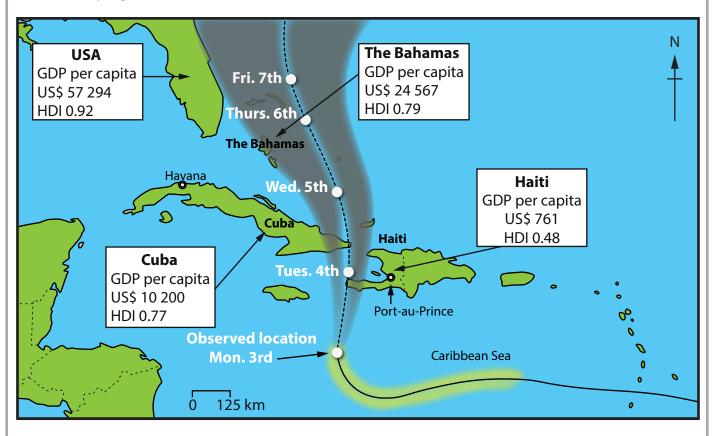
(i) Describe the trends in mean Antarctic temperatures and CO<sub>2</sub> concentration as

shown in Figure 2. Use numeric data in your answer.

J	,	(3)

(ii) Exp	olain	one natural cause of climate change.	(2)
(d) The Sa	ffir-S	Simpson Scale measures the magnitude of tropical cyclones.	
ldentif cyclon		e source of data used to calculate the Saffir-Simpson Scale of a tropical	
•			(1)
$\times$	A	satellite imagery	
$\boxtimes$	В	seismometer readings	
$\boxtimes$	C	recorded wind speeds	
$\boxtimes$	D	thermometer readings	

(e) Study Figure 3.



# Key

- capital city
- actual path of the storm before 3rd October
- predicted path of the storm after 3rd October
- possible range of predicted storm paths
- area of hurricane force winds before the 3rd October

	USA	Haiti	The Bahamas
Total Deaths	33	1 027	27
GDP per Capita (US\$)	57 294	761	24 567
HDI (Human Development Index)	0.92	0.48	0.79

Figure 3

Actual and predicted path of Hurricane Matthew (Oct 2016) and data for selected countries

	(i)	Haiti appears to be very vulnerable to the impacts of Hurricane Matthew.	
		Using Figure 3, suggest <b>two</b> reasons why.	( 5 )
			(4)
1			
2			
	(ii)	Figure 3 includes a GIS cyclone track map.	
	(11)		
		Explain <b>two</b> ways maps such as these can help countries to prepare for tropical cyclones.	
			(4)
1			
2			



<ul><li>(f) Explain <b>one</b> way in which global atmospheric circulation determines the location of high rainfall (low pressure) areas.</li><li>You may use a diagram to help your answer.</li></ul>	n
Tou may use a diagram to help your answer.	(3)

(8)

			(Tot	al for Que	stion 1 = 3	0 marks)	
	 	 	 				•••••

**TOTAL FOR SECTION A = 30 MARKS** 

### **SECTION B**

### **Development Dynamics**

Answer ALL questions in this section. Write your answers in the spaces provided.

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

Spelling, punctuation, grammar and use of specialist terminology will be assessed in 2(g).

2	(a) (i) Wh	nich	of the following is the definition of 'Gross Domestic Product (GDP)'?	(1)
	$\boxtimes$	A	the total value of goods and services produced within a country during one year	
	$\bowtie$	В	the total value of all products imported by a country during one year	
	$\boxtimes$	C	the total value of all products exported by a country during one year	
		D	the total value of all exports minus the value of imports during one year	
		nich DI)?	one of the following is included in the Human Development Index	
				(1)
	$\boxtimes$	A	the average number of women dying in child birth	
	X	В	the average number of births per woman	
	X	C	the average number of years attending school	
	X	D	the average number of people of working age	
	(b) Explaii	n ho	w the HDI measures the health of a population.	(2)
•••••				



(c) Explain **one** way in which topography affects economic development.

(d) Analyse Figure 4.

Solution 300
250
250
2000
2014

Foreign Direct 2000
100

Figure 4

FDI received by selected countries between 2000 and 2014

India

3.6

34.4

**USA** 

321.3

131.8

UK

122.2

48.7

50

0

2000

2014

**China** 

38.4

119.6

	(i) Calculate the difference between the FDI in China and India in 2014.	(1)
		US\$ billions
	(ii) Calculate the percentage increase in FDI in China between 2000 and 2014. Answer to one decimal place. Show your working.	
	Show your working.	(2)
		%
(e)	Explain <b>one</b> disadvantage of top-down development strategies.	(3)

(f) Analyse Figure 5.

	Rural population (millions)	Urban population (millions)	Total population (millions)
1960	550	100	650
1980	805	198	1,003
2000	820	455	1,275
2020 (projected)	650	750	1,400

Figure 5

# Changes in the actual and projected rural and urban population of China between 1960 and 2020

(	i) For 1960, calculate the ratio of rural population to urban population.	(1)
(	ii) Describe another data presentation technique which could be used to show the changing rural and urban populations in China in the table (Figure 5).	(2)
	iii) Explain <b>one</b> negative impact of rapid economic development on human health.	(2)

between regions.	country, explain <b>two</b> socio-economic	differences (4)
Named emerging countr	ry	

# In this question, up to four additional marks will be awarded for your spelling, punctuation, grammar and use of specialist terminology.

_,	ountry.	
	· ······ <b>/</b> ·	(8)
Ν	amed emerging country	
	, , ,	



	TOTAL FOR SECTION B = 34 MARKS
(Total for spelling, punctuation, grammar an	(Total for Question 2 = 34 marks)
(Total for spolling punctuation grammar an	ed use of specialist terminology – 4 marks)

### **SECTION C**

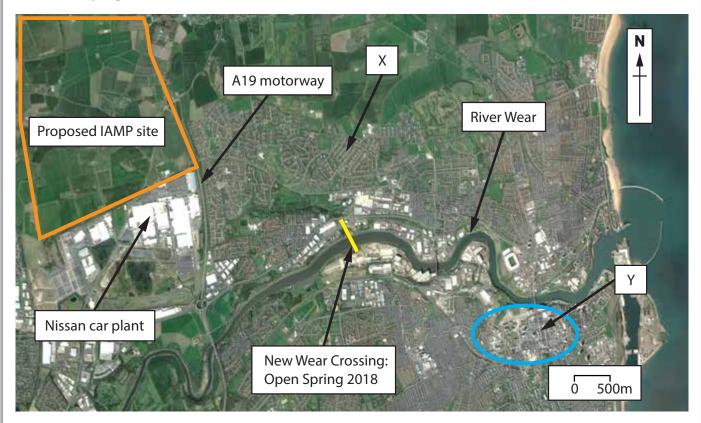
# **Challenges of an Urbanising World**

Answer ALL questions in this section. Write your answers in the spaces provided.

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

3	(a) S	tate	whic	ch of the following is the definition of urbanisation.	(1)
		×	A	an increasing number of people living in the suburbs of cities	
		X	В	an increasing proportion of people leaving the cities and moving to rural areas	
		X	C	an increasing number of people living in city centre locations	
		X	D	an increasing proportion of a country's population living in urban areas	
	(b) (i	) St	ate (	one characteristic of informal employment.	(1)
	(i		φlai ties.	n <b>one</b> reason why informal employment has grown rapidly in some	(2)

(c) Study Figure 6.



### Key:

IAMP - International Advanced Manufacturing Park



- Sunderland's Central Business District (CBD)

### Figure 6

# An annotated satellite image of Sunderland showing different land uses and future developments

(i) Identify the main land use found at locations X and Y by completing the table using the list below.

(2)

- **A** Transport
- **B** Agricultural
- **C** Residential
- **D** Commercial
- **E** Industrial

Location	Main land use
x	
Υ	



	(ii) Describe the location of Sunderland's Central Business District (CBD) shown on Figure 6.	(3)
1	(iii) Suggest <b>two</b> factors which may have influenced the choice of site for the proposed International Advanced Manufacturing Park (IAMP) shown on Figure 6.	(4)
2		

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## (d) Study Figure 7.

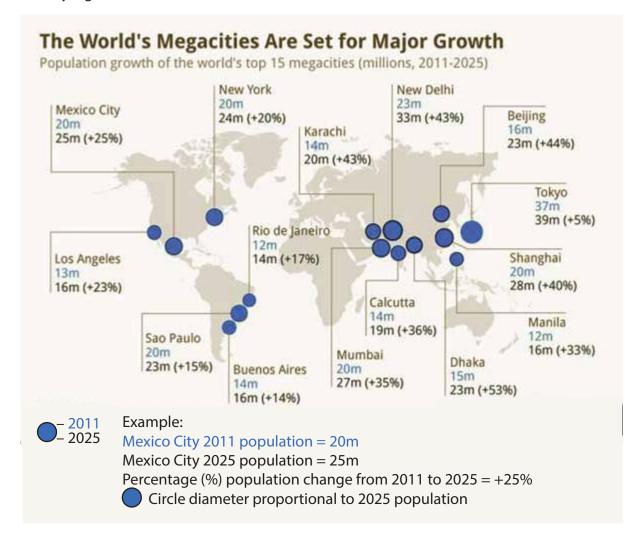


Figure 7

Populations and population growth rate of the world's largest megacities

(i)	Calculate the mean % population growth between 2011 and 2025 in South American megacities. Answer to one decimal place. Show your working.	(2)	
			%
(ii)	Explain why the rapid growth of megacities shown in Figure 7 may cause social challenges.	(3)	

(e) (i)	State <b>one</b> reason why the population of megacities is likely to grow rapidly.	(1)
(ii)	For a named megacity, explain why the quality of life varies between different residential areas.	(3)
	Named megacity	

(iii) For a named megacity, assess the different strategies used to improve sustainability.	(8)
Named megacity	



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	(Total for Question 3 = 30 marks)
l	
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TOTAL FOR SECTION C = 30 MARKS
TOTAL FOR PAPER = 94 MARKS

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Figure 6 – Map data © 2017 Google

Figure 7 – Source from: https://www.statista.com/chart/1826/population-growth-in-the-worlds-megacities/

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