

Write your name here

Surname Smith	Other names John
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Centre Number

Candidate Number

Pearson Edexcel
Level 1/Level 2 GCSE (9-1)

1	4	2	5	7
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1234567

Geography B

Paper 1: Global Geographical Issues

Tuesday 22 May 2018 – Afternoon
Time: 1 hour 30 minutes

Paper Reference
1GB0/01

You must have:
Calculator

Total Marks

76



ND059244038

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 ►

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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 . 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 Figure 1.

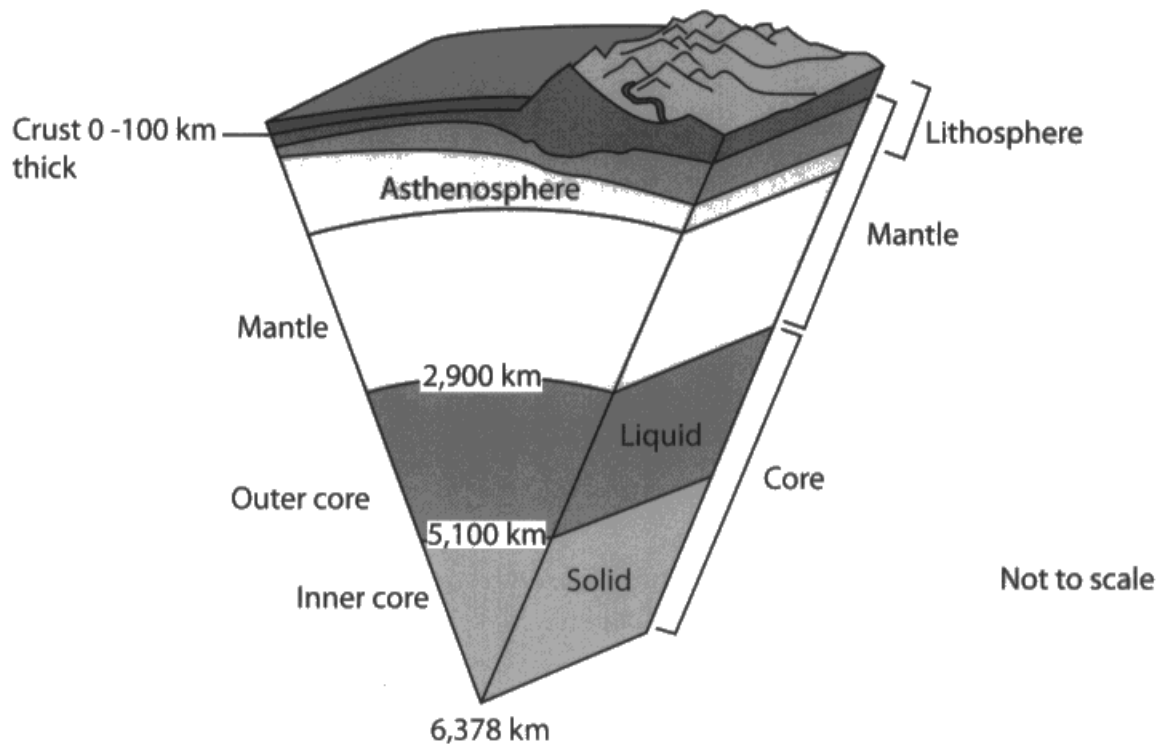


Figure 1

The Earth's layered structure

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

(1) 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) State which **one** of the Earth's layers has the highest density.

(1)1

- A mantle
- B crust
- C inner core
- D outer core

(b) (i) Explain **one** cause of a tsunami.

(2)2 Q01bi

By there is an earthquake under the sea bed some rock may be jolted upwards creating a bulge of water which spreads out forming one huge wave in all directions.

(ii) Identify **one** primary impact of tectonic hazards.

(1)1

- A loss of employment
- B spread of disease
- C destruction of buildings
- D homelessness



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(c) Analyse the data in Figure 2.

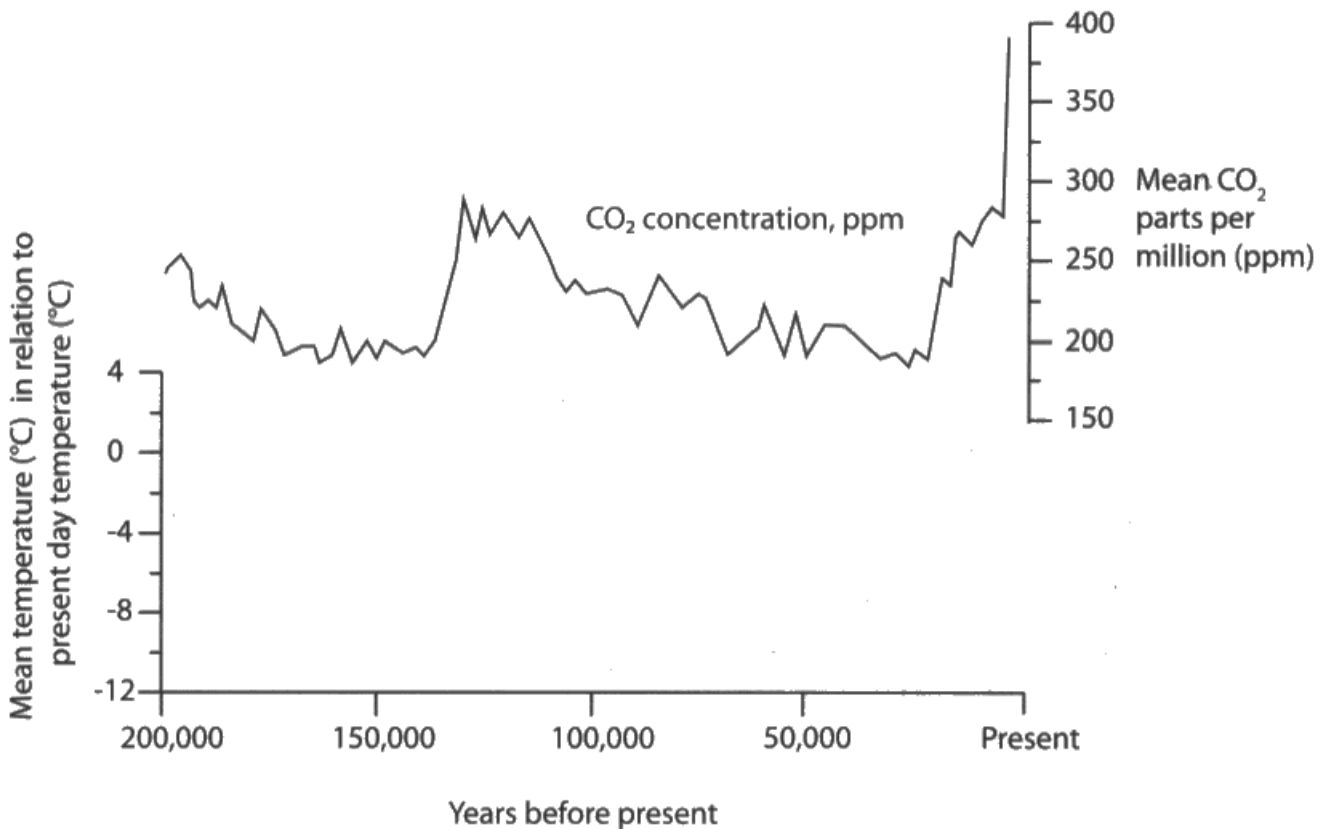


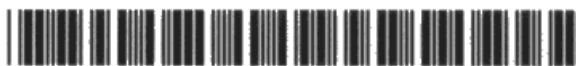
Figure 2

Mean Antarctic temperatures and atmospheric CO₂ concentration over the past 200,000 years

(i) Describe the trends in mean Antarctic temperatures and CO₂ concentration as shown in Figure 2. Use numeric data in your answer.

(3) 3 Q01ci

Between ~~200,000 and 150,000 years~~ 200,000 and 150,000 years ago the temperature and CO₂ concentration decreased. ~~Just afterwards~~ Just afterwards about 140,000 years ago both the temperature and CO₂ concentration levels increased enormously from -9°C to 4°C and 200 ppm to 275 ppm. After that both began to fall down slowly until 25,000 years ago where they began to increase again. Throughout most of the time both fluctuated in small amounts.



(ii) Explain **one** natural cause of climate change.

(2)2 Q01cii

Sunspots on the sun are areas of high radioactivity. These release a lot of heat so the more sunspots the warmer the Earth will be and the fewer sunspots the colder the Earth will be.

(d) The Saffir-Simpson Scale measures the magnitude of tropical cyclones.

Identify **one** source of data used to calculate the Saffir-Simpson Scale of a tropical cyclone.

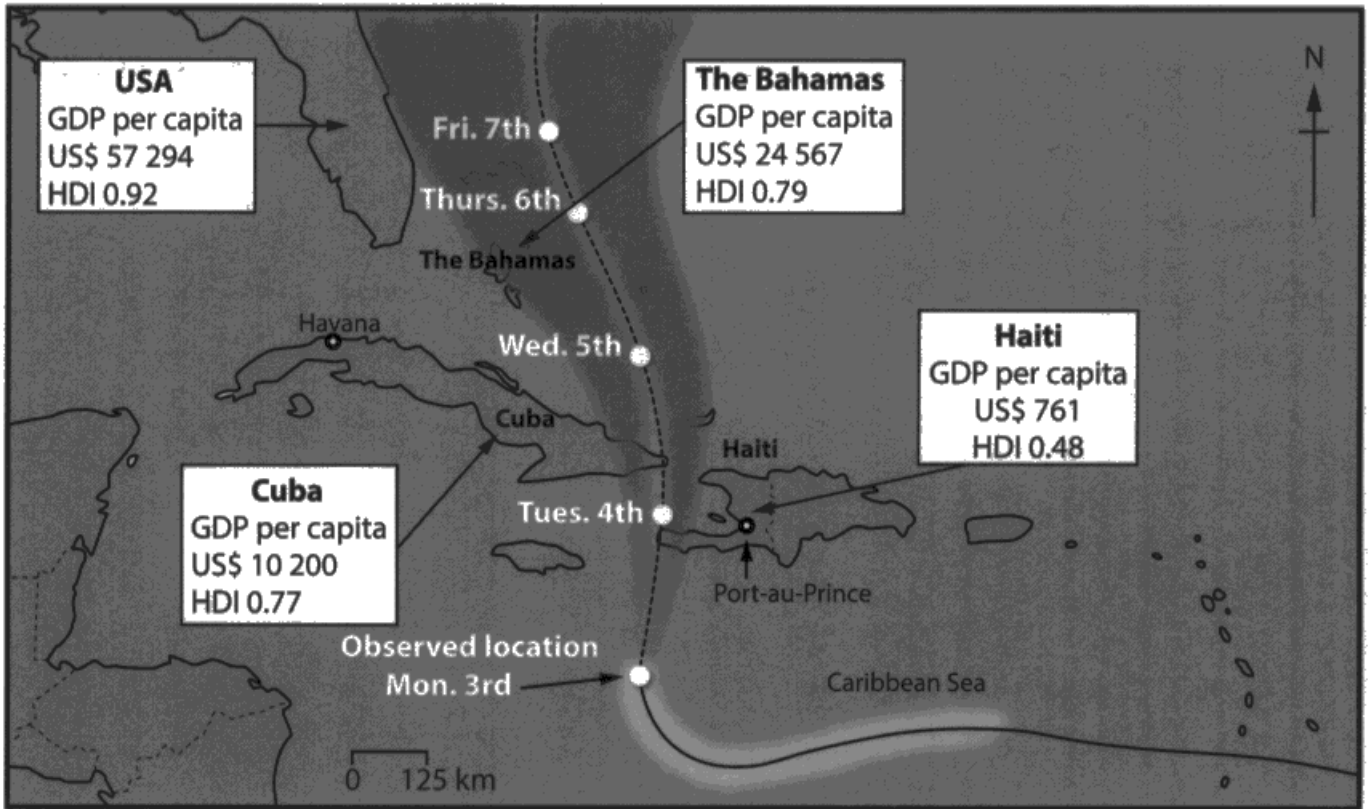
(1)1

- A satellite imagery
- B seismometer readings
- C recorded wind speeds
- D thermometer readings



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(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 **two** reasons why.

(4) Q01ei

1. Haiti has a very low GDP per capita of \$761 which implies that it is a poor country and subsequently will be unable to prepare well for the storm ~~or~~ or manage the storm well.
2. The capital city is on the coastline which suggests it will get a storm surge and many will be affected because the most people live in the capital. The storm surge will be ~~gummed~~ gunned by the landscape.

(ii) Figure 3 includes a GIS cyclone track map.

Explain **two** ways maps such as these can help countries to prepare for tropical cyclones.

(4) Q01ei

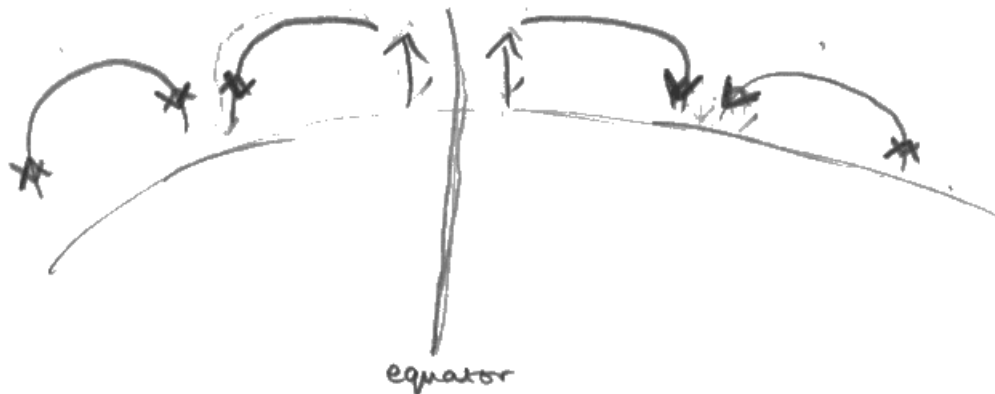
1. The countries can see the main areas that the cyclone will hit and will be able to evacuate people early from this area to reduce the number of ~~deaths~~ fatalities.
2. It allows them to see the route the storm will take and which countries need to prepare and which ones do not because the storm will pass by.



(f) Explain **one** way in which global atmospheric circulation determines the location of high rainfall (low pressure) areas.

You may use a diagram to help your answer.

(3) 1 Q01f



The equator receives the most sunlight so the water there will ~~evaporate~~ evaporate, rise and then fall as rain. This will mean that on either side of the equator it will be higher pressure with no rain. The warmer air will always rise and condense and fall as rain.



(g) Evaluate the effectiveness of the methods of response to a tropical cyclone in a named developed country.

186 Q01g

Named developed country America, New York

When Hurricane Sandy hit New York, the country did as much as they could to help those in need by trying to respond quickly. One way they did this was by using social media as a way to contact people and families. This was because phone ~~lines~~ ^{lines} were overwhelmed with so many calls. This was very effective as it allowed quick communication. Another response was that all fire services were called out immediately to help rescue people and manage the flooding. These people were helped as quickly as possible so this was very effective. When it was clear that the flood waters would affect the electricity in New York, the government decided to turn off the power in order to prevent fires. This was a good decision because reduced the risk of death despite the fact people had no power. Many places were closed immediately like shops, schools and the subway to prevent further damage. ~~the~~ ~~the~~ This was a good response because it prevented ~~the~~ more



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damage being done. Another response was that there were constant updates and tracking of the storm to see when it would reduce in intensity which allowed people to plan for how long to stay inside.

(Total for Question 1 = 30 marks) **25**

TOTAL FOR SECTION A = 30 MARKS

Overall, Hurricane Sandy was managed very well because all the resources available to the country were used such as social media.



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 ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

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

2 (a) (i) Which of the following is the definition of 'Gross Domestic Product (GDP)?

(1)

- A the total value of goods and services produced within a country during one year
- B the total value of all products imported by a country during one year
- 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

(ii) Which **one** of the following is included in the Human Development Index (HDI)?

(1)

- A the average number of women dying in child birth
- B the average number of births per woman
- C the average number of years attending school
- D the average number of people of working age

(b) Explain how the HDI measures the health of a population.

(2) Q02b

HDI includes the life expectancy of a country. This figure will show how good the healthcare is in the country because a high life expectancy means excellent healthcare because lives can be prolonged with medicine and treatments.



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

(3) 2 Q02c

Topography is the shape of the landscape of a country. If the terrain is very mountainous and difficult to travel ~~through~~, the economic development of the country will be slower because fewer people can get to the country and it is harder for goods to be transported for export.

(d) Analyse Figure 4.

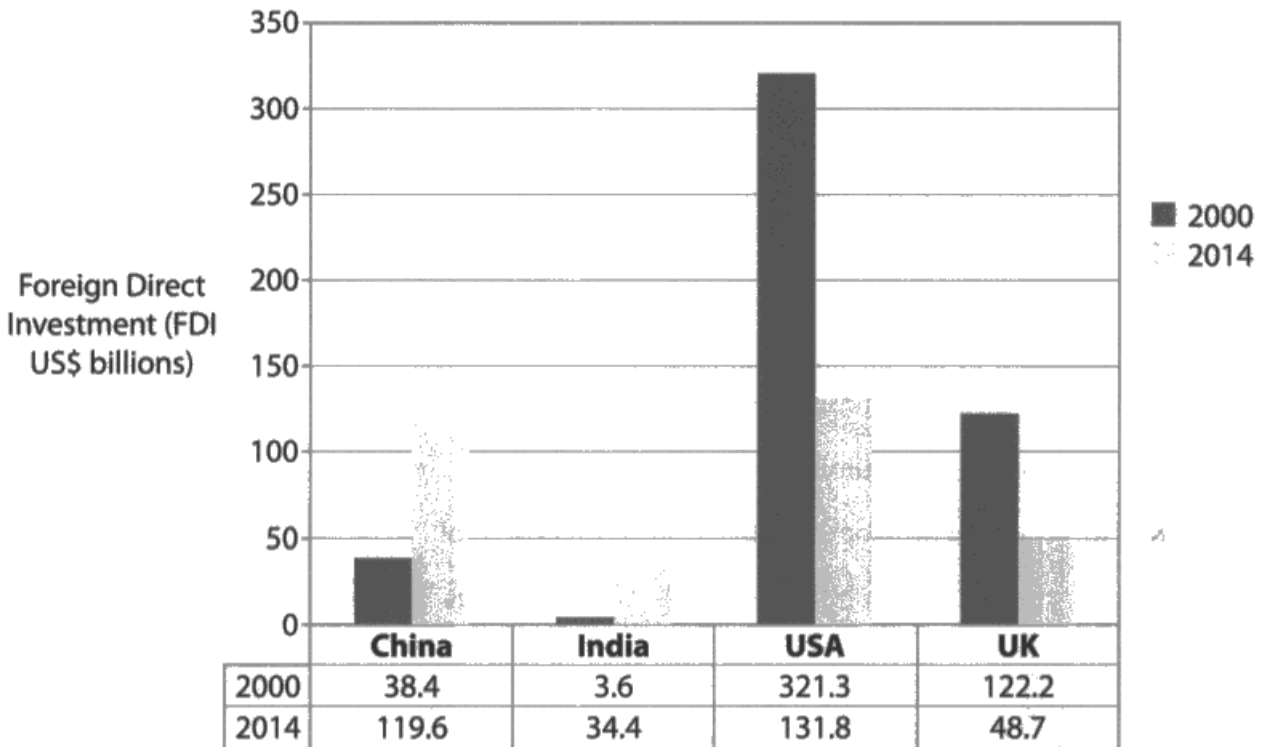


Figure 4

FDI received by selected countries between 2000 and 2014



(i) Calculate the difference between the FDI in China and India in 2014.

(1) Q02di

~~85.2~~ 85.2 US\$ billions

(ii) Calculate the percentage increase in FDI in China between 2000 and 2014.
Answer to one decimal place.
Show your working.

(2) Q02dii

$$\frac{119.6 - 38.4}{38.4} \times 100 = 211.4583$$
$$= 211.5$$

211.5 %

(e) Explain **one** disadvantage of top-down development strategies.

(3) Q02e

Often large scale top-down schemes have big impacts on the environment ~~by~~ because they often use a lot of resources and take up a lot of land*. This means there is less land for animals and trees to go. One example is the Namada Dam.

* because they are larger schemes.



(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.

$$550 : 100$$

$$55 : 10 \rightarrow 11 : 2$$

$$11 : 2$$

(1) 1 Q02fi

(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).

multiple

(2) 2 Q02fii

A bar graph with ~~one~~ ^{multiple} bars ~~for each~~ year could be used to show clearly how the population has changed from year to year.

(iii) Explain **one** negative impact of rapid economic development on human health.

(2) 2 Q2fiii

Rapid economic development will mean that more electricity will be used as jobs become tertiary jobs. This means there will be more pollution and greenhouse gases which makes the air more polluted for humans which is bad for our health.



(iv) For a named emerging country, explain **two** socio-economic differences between regions.

(4) Q02fiv

Named emerging country India

1. In some regions there is a high GDP per capita because there are megacities which are where well paid jobs are so people in these areas will be very wealthy.
2. In some areas the caste system is more important than others. In place like Bihar you can only marry within your caste so poor people will always stay poor. This leads to different levels of development in different regions.



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

(g) Evaluate the impact of globalisation on the economy of a named emerging country.

(8) 3 Q02g

1 Q2gSPG

Named emerging country India

Globalization is the interconnecting of countries by trade and transport which allows links to be made. This has allowed India to become connected to lots of countries all over the world which boosts its economy. For example, TNC's have used outsourcing in India which provides many more jobs for people in India in the tertiary sector. These jobs are better paid so people can move and this boosts the economy because the government can tax more. Globalization also means that it is easier for India to import and export with countries all over the world. This boosts the economy because they can sell more. A growing economy will allow more imports so the country can reduce the amount of secondary jobs and increase the number of tertiary jobs which can be taxed higher and increase the country's wealth. Improving relationships with other countries will mean that India is more likely to be given



loans from the world bank to improve healthcare, education and housing in the country. These improvements will mean more people can work better jobs if they are healthy and well educated thus boosting the economy further.

Overall, globalization has had an extremely positive impact for India's emerging economy.

(Total for spelling, punctuation, grammar and use of specialist terminology = 4 marks)

(Total for Question 2 = 34 marks) **24**

TOTAL FOR SECTION B = 34 MARKS



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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 ☒. If you change your mind about an answer, put a line through the box ☒ and then mark your new answer with a cross ☒.

3 (a) State which of the following is the definition of urbanisation.

(1) 1

- A an increasing number of people living in the suburbs of cities
- B an increasing proportion of people leaving the cities and moving to rural areas
- C an increasing number of people living in city centre locations
- D an increasing proportion of a country's population living in urban areas

(b) (i) State **one** characteristic of informal employment.

(1) 1 Q03bi

The government is unaware of it so it doesn't get taxed.

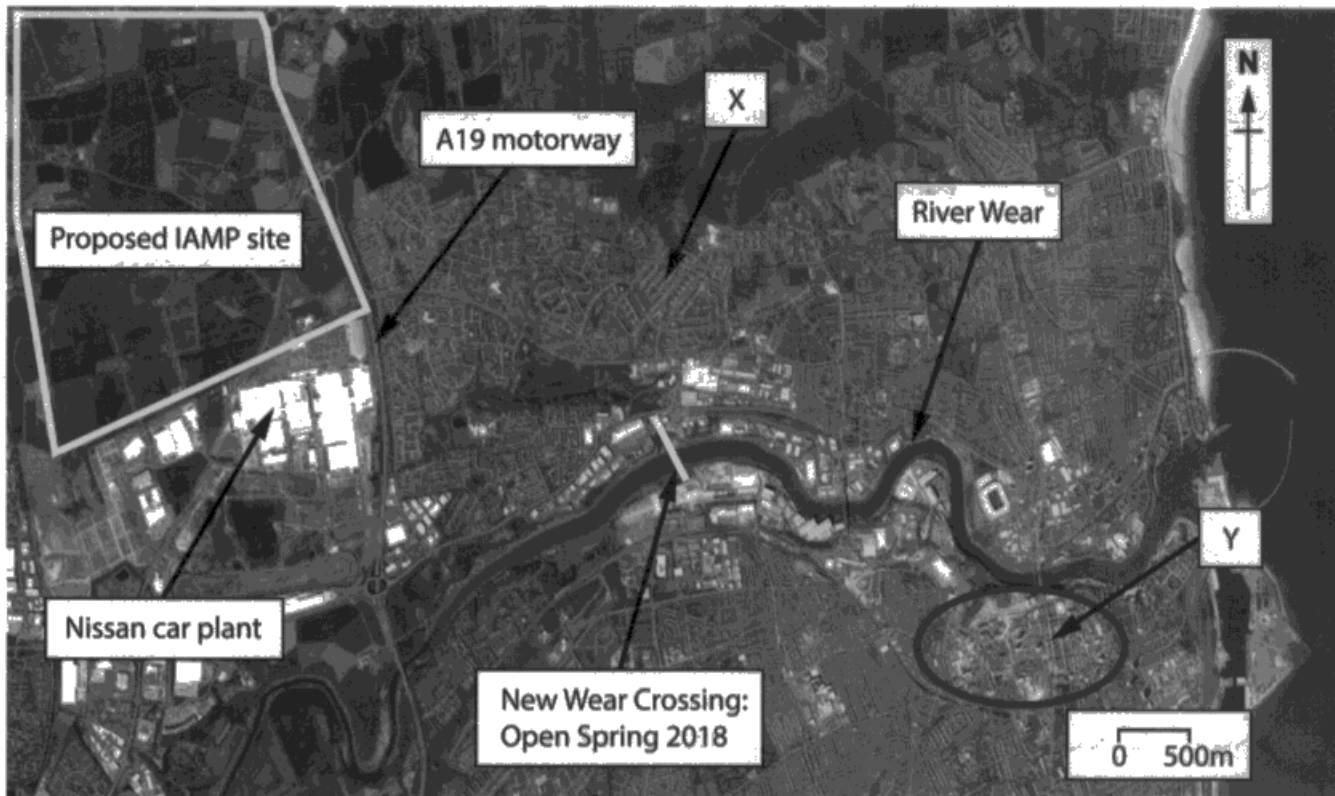
(ii) Explain **one** reason why informal employment has grown rapidly in some cities.

(2) 1 Q03bi

There are more and more people in cities as well as tourists. Working ~~by~~ on the street where the people are will mean more things are sold and more money is made because they can be seen. Also some people from rural areas don't have an education needed for a job.



(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) Q03ci

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

Location	Main land use
X	Residential
Y	Commercial



- (ii) Describe the location of Sunderland's Central Business District (CBD) shown on Figure 6.

(3) 3 Q03cii

The CBD of Sunderland is south of the river Wear ~~and~~ and west of the sea. It is close to residential areas but far from the Nissan car plant. It is about 1.500m wide and is close to residential areas. It is quite near to the estuary.

- (iii) Suggest **two** factors which may have influenced the choice of site for the proposed International Advanced Manufacturing Park (IAMP) shown on Figure 6.

(4) 4 Q3ciii

1 The site is near to the Nissan car plant which will mean all the industrial activities are together creating a defined industrial area in Sunderland.

2 It is fairly far away from ~~the~~ most ~~of~~ of the residential area which means people won't be aggrued by as much ~~pollution~~ pollution.



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(d) Study Figure 7.

The World's Megacities Are Set for Major Growth

Population growth of the world's top 15 megacities (millions, 2011-2025)

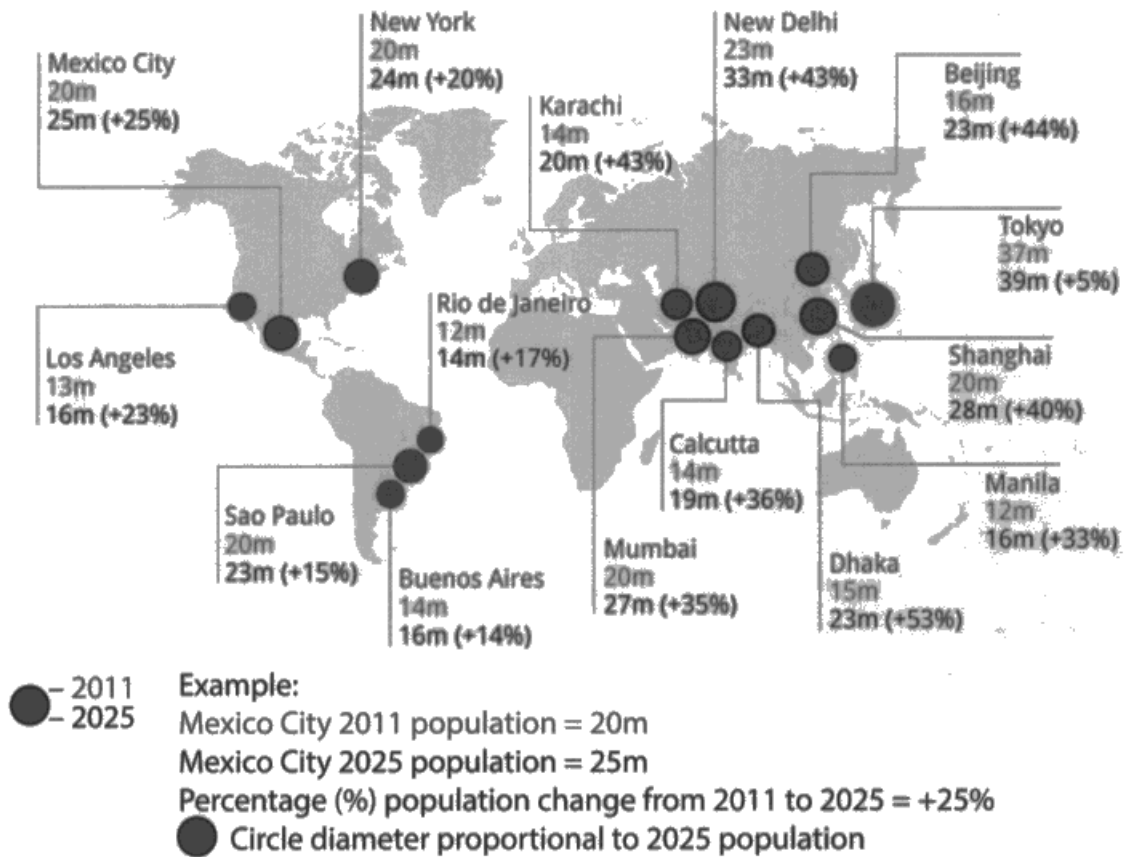


Figure 7

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.

$$15\% + 17\% + 14\% = \frac{46\%}{3} = 15.\dot{3} \\ = 15.3$$

(2) Q03di

15.3 %

- (ii) Explain why the rapid growth of megacities shown in Figure 7 may cause ~~people~~ social challenges.

(3) Q03dii

The rapid growth of megacities may lead to overpopulation and this would mean that there will not be enough housing for people, forcing them to live in places like slums. This will mean also that disease is spread quickly between people in the overpopulated areas.



(e) (i) State **one** reason why the population of megacities is likely to grow rapidly.

(1) 1 Q03ei

Megacities provide jobs for people so people who live in rural areas will move there.

(ii) For a named megacity, explain why the quality of life varies between different residential areas.

(3) 2 Q03ei

Named megacity Mumbai

Mumbai's residential areas have become polarised. This means that the very rich ^{with good high income jobs} are able to live in huge apartments with modern luxuries and their quality of life is very high whereas poor people without well paying jobs have to live in places like slums where disease is prevalent and water ~~is~~ contaminated. Their quality of life is very poor.



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

(8)7 Q3eiii

Named megacity ~~London~~ Mumbai

One strategy used in Mumbai is a top down project called ~~the~~ Vision Mumbai. This scheme has helped to improve housing by demolishing slums and building apartments. Unfortunately the slums are made faster than they are removed which means the problem remains. They have also widened roads to improve safety and make more room for traffic as well as improved safety at railways to tackle the overcrowded stations. This has worked quite well to reduce congestion and improve sustainability. Another thing that they wanted to do was improve sanitation by adding more public toilets to improve people's quality of life and reduce disease. This has helped but more toilets and taps are needed. Overall I think that this scheme has helped the city ~~become~~ a lot to become more sustainable. Another project is run by LSS an NGO that helps sufferers of leprosy. This is a charity that treats people with the disease which helps improve the health of many especially in the slums. The project also raises awareness of the disease and



the preventative measures people can take to protect themselves which improves quality of life. The LSS also provides a ~~new~~ service to look after the children of parents so they can work and get money for their families improving the economy. I think that this

(Total for Question 3 = 30 marks) **27**

Scheme is really effective

TOTAL FOR SECTION C = 30 MARKS

TOTAL FOR PAPER = 94 MARKS

at improving sustainability in Mumbai because it provides healthcare, education and helps boost the economy. However as it is an NGO it has limited funds unlike Vision Mumbai.



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Figure 3 – Map data © 2017 Goggle, INEGI

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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