

A-level GEOGRAPHY

Paper 2 Human geography

Specimen Question Paper

Time allowed: 2 hours 30 minutes

Materials

For this paper you must have:

- a pencil
- a rubber
- a ruler.

You may use a calculator.

Instructions

- Answer **all** questions in Section A **and** Section B.
- Answer **either** Question 3 **or** Question 4 **or** Question 5 in Section C.


Information


- The total number of marks available for this paper is 120.

Advice

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

CORRECT METHOD  WRONG METHODS    

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

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

Please write clearly, in block capitals, to allow character computer recognition.

Centre number Candidate number

Surname

Forename(s)

Candidate signature _____

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**

Section A

Global systems and global governance

Answer **all** questions.

0 1 . **1** Explain how **one** transnational corporation (TNC) has contributed to the globalisation of the world's economy.

[4 marks]

Question 1 continues on the next page

Figures 1, 2 and 3 show climatic statistics for three places in Antarctica.

Figure 1

Temperatures (degrees Celsius)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Mean Annual temperature |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------------|
| 1 | -32 | -44 | -58 | -65 | -66 | -65 | -67 | -68 | -66 | -57 | -43 | -42 | -56 |
| 2 | -28 | -41 | -54 | -57 | -57 | -58 | -60 | -60 | -60 | -51 | -38 | -28 | -49 |
| 3 | 0 | -6 | -14 | -17 | -19 | -19 | -22 | -23 | -21 | -16 | -7 | -1 | -14 |

1 = Vostok (78 degrees S - near to the 'Pole of Inaccessibility' - the point on Antarctica that is furthest from the sea in any direction). Height 3448 metres

2 = Amundsen-Scott (90 degrees S - the base at the South Pole). Height 2880 metres

3 = McMurdo (79 degrees S - on the coast of the Ross Sea). Height 24 metres

Figure 2

Precipitation (mm water equivalent)

| | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------|-----|------|------|------|------|------|------|------|------|-----|-----|------|-------|
| 1 | 0.1 | 0 | 0.7 | 0.5 | 0.4 | 0.5 | 0.6 | 0.7 | 0.3 | 0.2 | 0.1 | 0 | 4.1 |
| 2 | 0.2 | 0.3 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.1 | 0.8 |
| 3 | 15 | 21.2 | 24.1 | 18.4 | 23.7 | 24.9 | 15.6 | 11.3 | 11.8 | 9.7 | 9.5 | 15.7 | 200.9 |

Question 1 continues on the next page

Section B

Changing places

Answer **all** questions.

0 2 . **1** In the context of place, explain the meaning of 'endogenous factors' and 'exogenous factors'.

[4 marks]

Question 2 continues on the next page

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**

Figure 5a was painted in 1935. It shows the High Level Bridge across the River Tyne, and some housing and industry in Gateshead.

Figure 5b is a photograph of the same place taken in April 2015.

Figure 5a

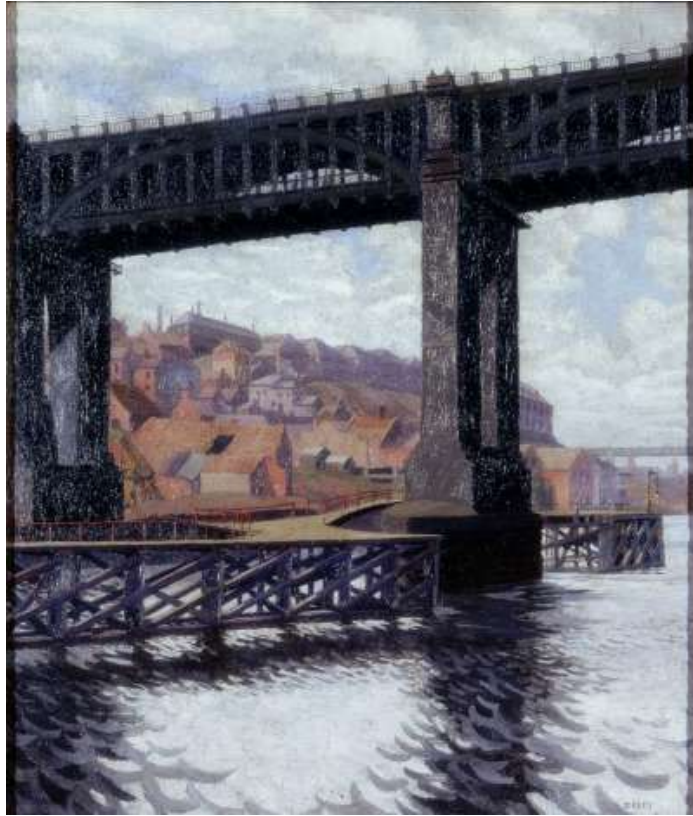


Figure 5b



Section C

Answer **one** question.

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

Shade the circle below to indicate which optional question you have answered.

Question **0 3**

Question **0 4**

Question **0 5**

CORRECT METHOD

WRONG METHODS

Question 3 Contemporary urban environments

0 3 . **1** When is the urban heat island effect most likely to occur?

[1 mark]

- A** At a weekend when fewer people commute into the city so there are lighter urban winds. The winds reduce the temperature by dissipating heat energy.
- B** During the passage of a depression when the warm front has just crossed the urban area. The warm front worsens the heat island effect adding to the increase in temperatures.
- C** In spring, when the rural areas are relatively cool after the winter months. This creates a major contrast to cities which have a marked increase in temperatures.
- D** On a calm night during an anticyclone when there is less mixing of the air. The high pressure leads to cloudless skies. By contrast rural areas tend to have lower temperatures.

Question 3 continues on the next page

0 3 . **2** What are the characteristics of an area undergoing urban resurgence?

[1 mark]

- A** Suburban expansion of social housing as new estates meet the needs of a growing population. Services and investment are targeted at retraining the workforce for new industries.
- B** Influx of often younger professionals, higher skilled and educated, occupying older inner city type locations. This is often accompanied by the processes of gentrification.
- C** Emergence of new towns, designed to cope with growing populations and the movement of families out of areas of deprivation. Industry is attracted by the local government.
- D** Government incentives and public-private partnership designed to demolish building and redevelop on brownfield sites for the purposes of new light industry and recreational facilities.

0 3 . **3** Following a storm, why do urban river discharges often return to normal base flow levels more quickly than rural river discharges?

[1 mark]

- A** In rural areas the gradients are less steep so the runoff is slower. The water is stored on the ground surface, in the soil and in bedrock.
- B** Interception is usually greater in urban areas because the land has not been ploughed to remove the vegetation. Trees that are planted as part of urban development restrict the water movement.
- C** In urban areas a higher proportion of the precipitation becomes runoff rather than throughflow. This reduces lag time to peak discharge and the return to base flow.
- D** Rainfall is usually more torrential in urban areas. This is due to the convection processes caused by rapid evaporation from the dark surfaces.

03 . **4** Why are some cities considered to be world cities?

[1 mark]

- A** These are cities that are the major hubs of trade and capital markets. They often have a colonial heritage with links to other countries dating back hundreds of years. A good example is Paris.
- B** These are cities that cover the largest area of land. They are the product of decades of inward internal migration. A good example is Mexico City.
- C** These are cities with the highest density of population. Here the relative lack of available land for development has squeezed the very large population into small pockets which leads to the highest densities. A good example is Cairo.
- D** These are cities with the largest number of people. These huge cities are home to a wide range of cultures and ethnic groups following decades of international migration. A good example is Istanbul.

Question 3 continues on the next page

0 3 . 5 Analyse changes in the world pattern of urbanisation shown in **Figure 7** and **Figure 8**.

[6 marks]

Figure 7 - 1990–2015

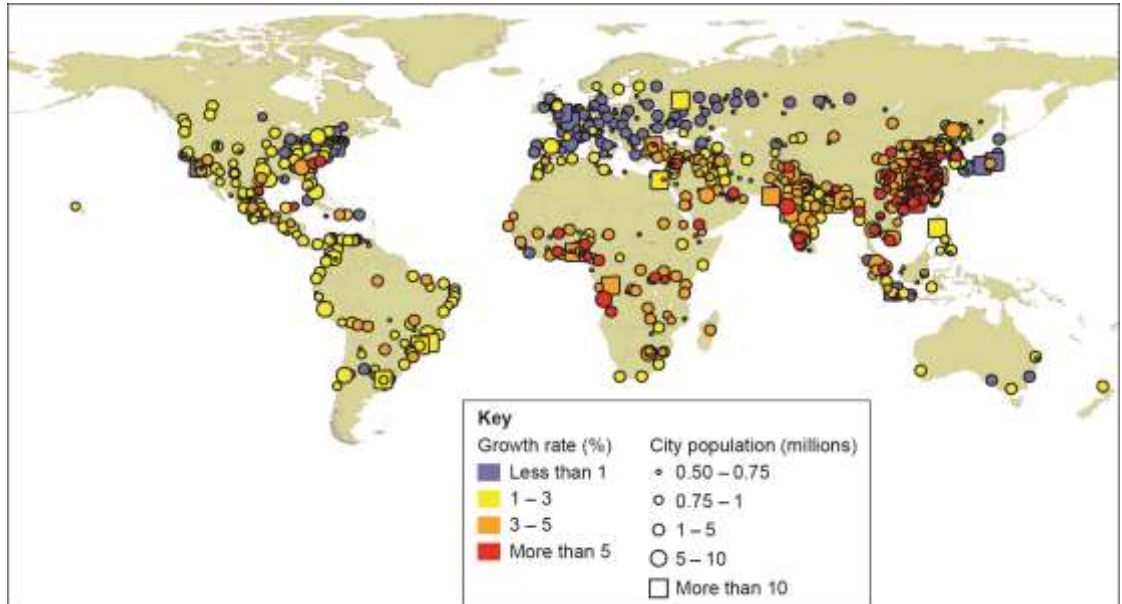
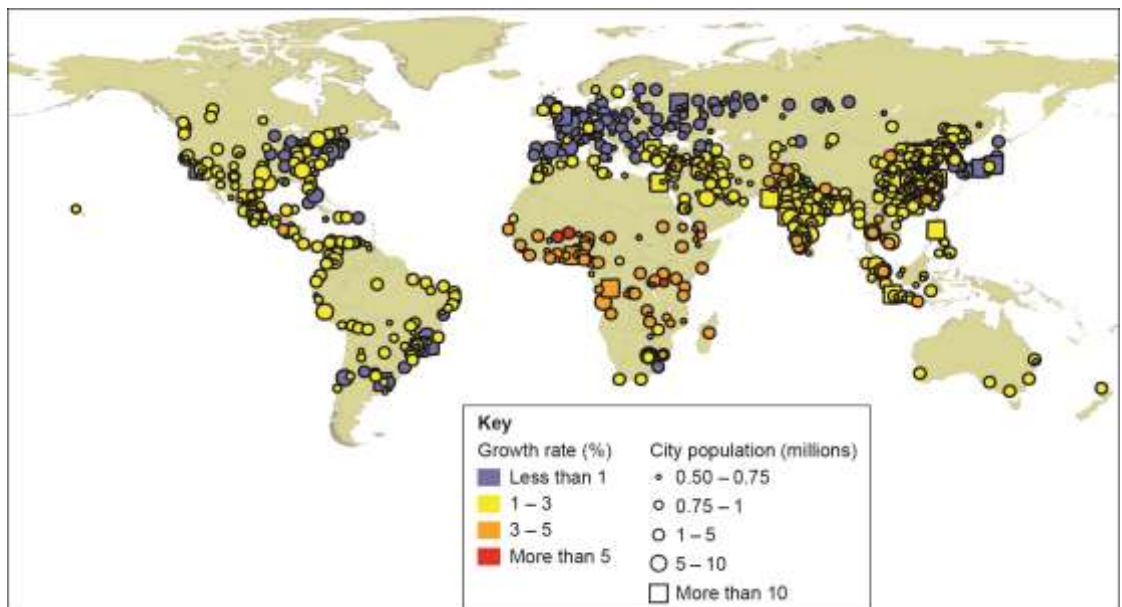


Figure 8 - 2015–2030



0 3 . 6 **Figure 9** shows information about Babcock Ranch, a proposed sustainable city in Florida, USA.

Figure 9



**Factfile:**

- Babcock Ranch will be the first city in the world powered by solar energy.
- Electric vehicles will plug in to recharge at convenient recharging stations all over the community.
- Smart Home technology will let residents use equipment in their homes at maximum efficiency.
- The city will be connected by an extensive system of greenways and cycle paths.
- Homes, parks, offices and shops will all be within walking distance. 7000 hectares of land in the new city will be reserved for natural parks and lakes.

Question 3 continues on the next page

Question 4 Population and the environment

0 4 . **1** When does salinisation of soils occur?

[1 mark]

- A** Extra manure is added to increase the salts in the soil. The manure often contains salts and adds to the concentration of this mineral. This creates salt pans.
- B** Fertilisers are used to add nitrates and phosphates to the soil. These have the unintended impact of adding to the salt content but this also increases soil fertility for crop growth.
- C** Rapid drainage leads to salts being leached downwards to the lower horizons of the soil. This increases salinisation in the lower horizons making it difficult to grow crops.
- D** Water is drawn to the surface by high temperatures which cause evaporation. This precipitates salts near to the surface of the soil. The process of eluviation creates salt pans.

0 4 . **2** What factors cause the growth rate of a country's population to accelerate?

[1 mark]

- A** A decreasing birth rate and an increasing immigration rate, combined with a falling death rate.
- B** An increasing birth rate, combined with a marked increase in the death rate and increasing net migration rate.
- C** An increasing birth rate combined with a falling death rate leads to natural increase. When this is combined with high rates of net inward migration, population growth rates accelerate.
- D** As the population of women of child bearing age increases, the birth rate increases. When this is combined with the falling infant mortality and high rates of emigration, the population growth accelerates.

0 4 . **3** When does a country typically move from theoretical Stage 4 to Stage 5 of the Demographic Transition Model?

[1 mark]

- A** When the birth rate and the death rate are both low and the death rate falls lower than the birth rate. This leads to an ageing population which increases the dependency ratio.
- B** The country's economy moves into the late industrial stage. This phase is characterised by an increased development of services as a country moves away from its industrial heritage.
- C** The death rate and the birth rate are both low but the birth rate falls lower than the death rate. This causes the population to begin to decline. Policy makers may try to encourage higher birth rates.
- D** The economy starts to shrink because there are not enough people to fill all the jobs that are needed. This is particularly the case where there is a rapid fall in the death rate.

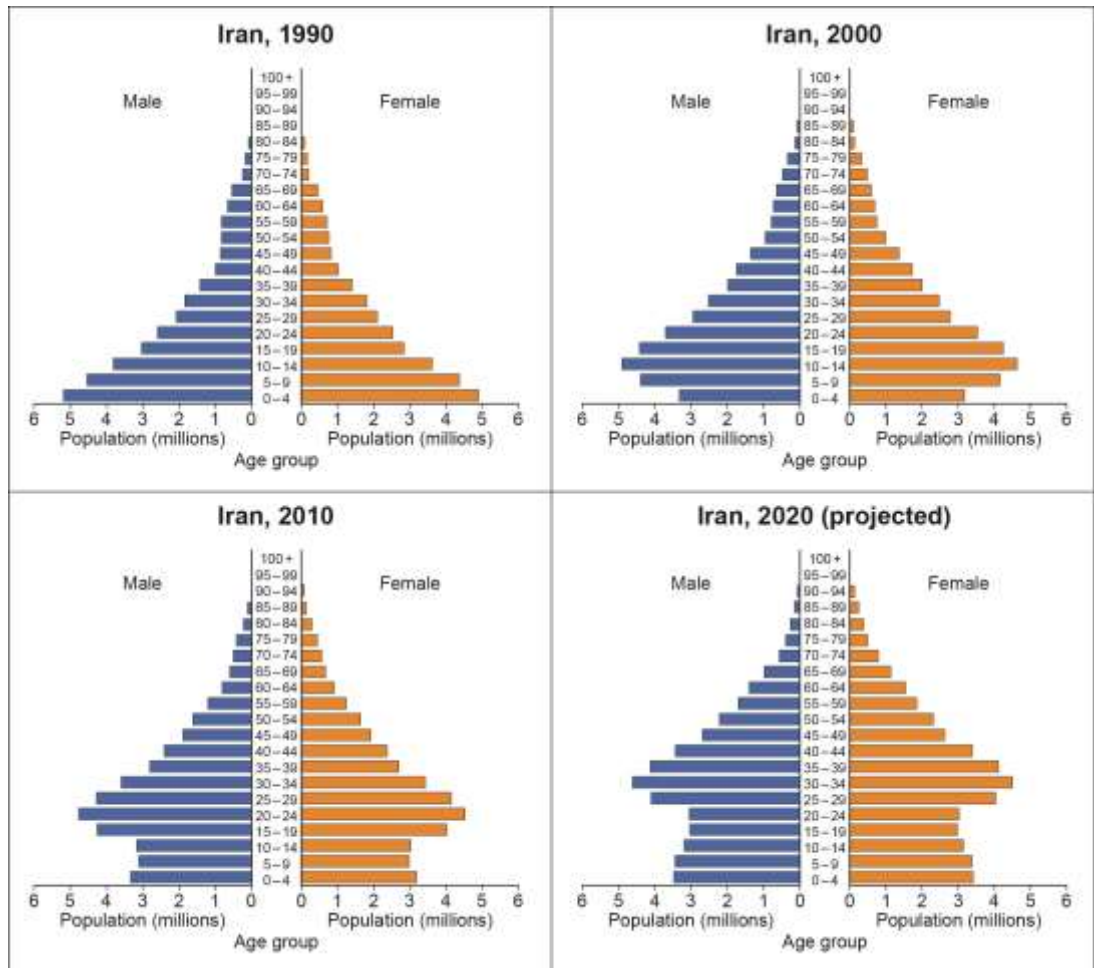
0 4 . **4** What changes occur during the epidemiological transition?

[1 mark]

- A** A decrease in deaths from infectious diseases and an increase in chronic disorders associated with ageing. This causes a shift in the age pattern of mortality from younger to older ages.
- B** An increase in the prevalence of biologically transmitted diseases such as malaria. This is caused mainly by climate change and leads to rising death rates in developing countries.
- C** An increase in strains of bacteria that are resistant to antibiotics, leading to epidemics of disease. This results in a rise in death rates, particularly in developed high income countries.
- D** A decrease in the prevalence of non-communicable diseases such as cancer and coronary heart disease. This is the result of better medical treatment and improvements in diet.

Figure 10 shows the changing population structure of Iran.

Figure 10



Question 5 Resource security

0 5 . **1** Which of the following groups are **all** flow resources for energy generation?

[1 mark]

- A** Geo-thermal power, bio-power, coal-fired power stations with carbon capture technology. These energy supplies involve the flow of energy supplied to the consumer who uses the energy.
- B** Nuclear power, solar power, fracked natural gas. These energy supplies involve a flow of energy to storage devices which then channel the energy on to consumers.
- C** Oil, natural gas, hydro-electric power. These energy supplies all involve liquid in some form. It is the liquid which flows and supplies the energy.
- D** Wind power, wave power, solar power. These flow energy supplies are renewable and involve natural movements of energy around the planet.

0 5 . **2** What is Greywater?

[1 mark]

- A** All waste water from a house that has not been contaminated with toilet waste. Provided non-toxic products have been used, the waste water is easy to treat and return for use in the home or in industry.
- B** The water supply system for irrigation but not for domestic use. It is not of the same quality as drinking water but acceptable for use in agriculture and for livestock.
- C** Water in a reservoir before it has been treated. This has not yet been treated with fluoride or chemicals designed to destroy bacteria. It is not ready for human consumption.
- D** Water lost from the supply system through leaks in the water mains. This mixes with groundwater and returns to the drainage basin hydrological cycle but is not dangerous to natural environments.

0 5 . **3** How does an aquifer provide a water supply?

[1 mark]

- A** A layer of impermeable rock holds water above it. This causes springs to form where it meets the surface. The springs are available to provide a supply of drinking water as natural purification has occurred.
- B** An underground layer of permeable water bearing rock. Artesian wells can be drilled into the aquifer. The naturally occurring high levels of pressure force water to the surface for consumption.
- C** Limestone, or a similar rock, that can be dissolved by water containing CO₂. This leads to the formation of potentially vast underground caverns capable of storing huge quantities of fresh water.
- D** The layer above the water table that allows water to flow freely downwards. This percolation leads to groundwater flow which raises the levels of nearby rivers and provides extra drinking water.

0 5 . **4** What does 'Peak oil' refer to?

[1 mark]

- A** Electricity generated in oil fired power stations. This is the most expensive way of generating electricity and is therefore referred to as the peak oil cost of producing electricity.
- B** This is the market price of Brent Crude, which is the purest and most expensive oil that is extracted from the North Sea. The purity means that it generates a peak oil price compared to other grades of oil.
- C** The theoretical point at which the maximum rate of oil extraction is reached. As oil is a finite resource, production will arguably decline once major global stores have been exhausted.
- D** The price at which central heating oil becomes so expensive that householders start to change their central heating systems to run on gas or switch to alternative energies.

Question 5 continues on the next page

Figures 12a and 12b are maps showing GNI per capita and Energy consumption per capita

Figure 12a

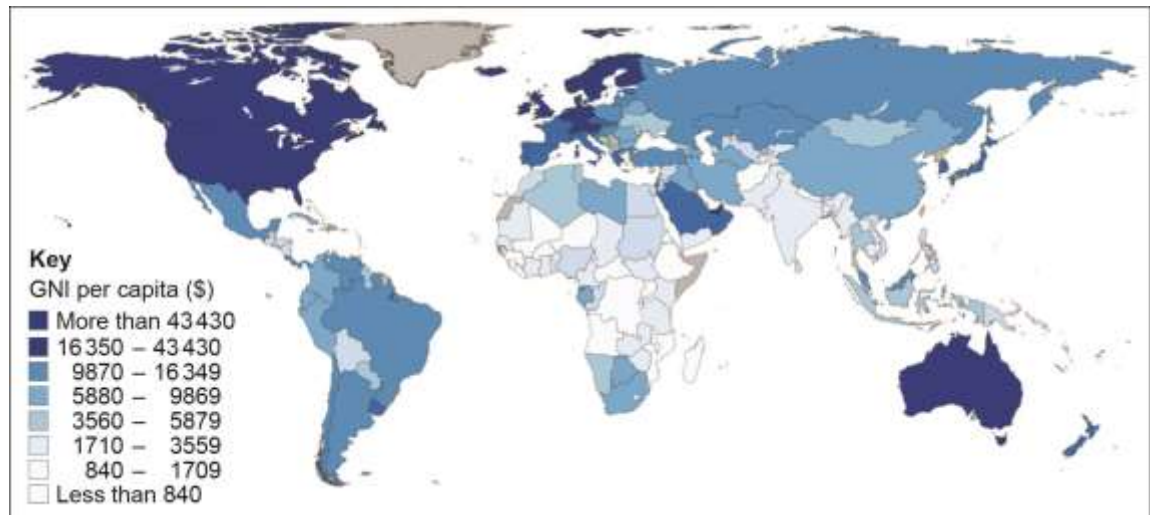
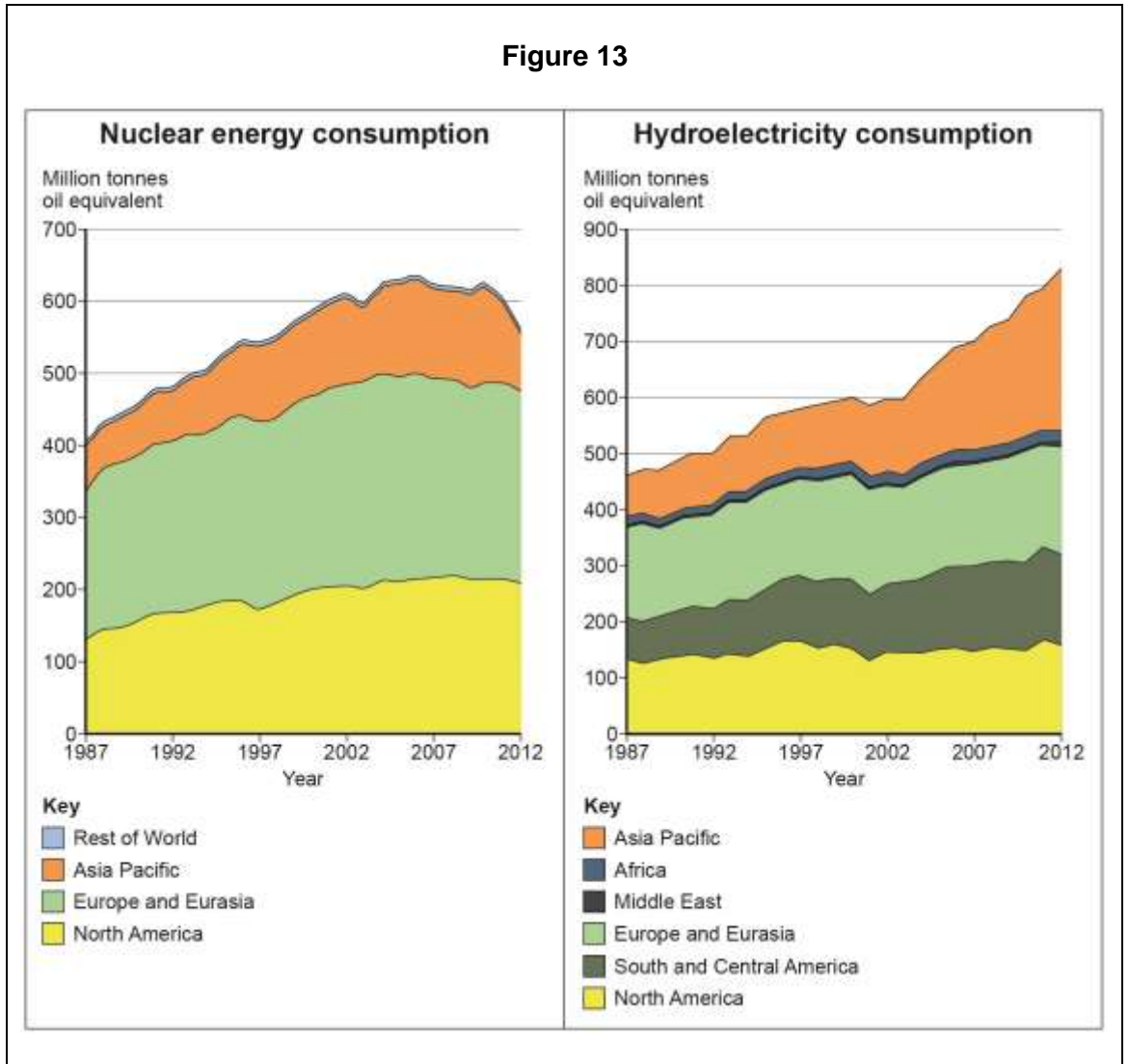


Figure 12b



Figure 13 shows trends in nuclear power and hydroelectricity consumption from 1987-2012.



0 5 . 6

With reference to **Figure 13** and your own knowledge, assess the success of strategies to increase energy supply through developing nuclear power and renewable energy.

[9 marks]
