



**Answer ALL the questions. Write your answers in the spaces provided.**

1. (a) Look at Figure 1 in the Resource Booklet. It gives information about the UK's population.

(i) What was the UK's population in 2003?

.....

(1)

(ii) What percentage of the UK's population will be aged over 65 years in 2031?

.....

(1)

(b) Look at Figure 2 in the Resource Booklet. It shows the components of population change in the UK.

(i) What does **natural increase** mean?

**Tick** the correct answer below.

	✓
The rate of population growth	
The number of births minus the number of deaths	
The number of births plus the number of deaths	

(1)

(ii) What does **net migration** mean?

**Tick** the correct answer below.

	✓
Migration between regions in one country	
The number of immigrants minus the number of emigrants	
The number of immigrants plus the number of emigrants	

(1)

(iii) What was the amount of the **natural increase** in the UK in 2002?

..... thousand

(1)

(iv) What was the main component of population change in the UK **between 1999 and 2002**?

**Tick** the correct answer below.

	✓
Natural increase	
Net migration	

(1)

Q1

(Total 6 marks)



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2. (a) Look at Figure 3 in the Resource Booklet. It shows the UK's energy consumption in 1980 and 2003.

What was the UK's **main** source of energy

- in 1980? .....
- in 2003? .....

(2)

(b) Look at Figure 5 in the Resource Booklet. It shows the UK's sources of renewable energy in 2003.

(i) What does **renewable** mean?

.....  
.....

(1)

(ii) What was the UK's **main** source of renewable energy in 2003?

.....

(1)

(c) Look at Figure 6 in the Resource Booklet. It gives information about the UK's greenhouse gas emissions.

(i) Name **one** greenhouse gas.

.....

(1)

(ii) Explain **why** the UK government wants to reduce greenhouse gas emissions.

.....  
.....  
.....  
.....  
.....  
.....

(2)



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(d) Look at Figure 4 in the Resource Booklet. It shows the UK's electricity production by fuel type in 1990 and 2003.

The UK managed to reduce its greenhouse gas emissions between 1990 and 2003.

Explain **how**. Use Figure 4 to help you.

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(3)

Q2

(Total 10 marks)



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3. (a) Look at Figure 7 in the Resource Booklet. It shows the UK's North Sea oil and gas production 1980–2003.

Cross out the **wrong** numbers in the following sentences.

Oil production rose to a peak of  $\frac{145}{155}$  million tonnes in the mid-1980s.

It fell in the late 1980s, but rose to a new peak in  $\frac{1999}{2000}$ .

Gas production increased steadily after 1990 and reached a peak of  $\frac{110}{120}$  million tonnes of oil equivalent.

(3)

- (b) Look at Figure 8 in the Resource Booklet. It gives information about the UK's oil and gas.

- (i) When will North Sea oil probably run out?

.....

(1)

- (ii) In future, the UK will need to import more of its oil and gas from countries such as Iraq, Russia and Azerbaijan.

Give two **disadvantages** for the UK of importing its oil and gas from these countries.

1 .....

.....

2 .....

.....

(2)

Q3

(Total 6 marks)



4. (a) Look at Figure 9 in the Resource Booklet. It gives information about wind energy in the UK.

(i) What does **offshore** wind farm mean?

**Tick** the correct answer below

	✓
A wind farm built on land	
A wind farm built in the sea	

(1)

(ii) Give two **advantages** of an offshore wind farm over an onshore wind farm.

1 .....

.....

2 .....

.....

(2)

(iii) How much of Europe's potential offshore wind power does the UK have?

.....

(1)

(b) Look at Figure 10 in the Resource Booklet. It gives information about nuclear power in the UK.

(i) How long does it take to:

• plan and build a nuclear power station? .....

• decommission a nuclear power station? .....

(2)

(ii) When a nuclear power station closes, it causes problems for the local people.

Suggest one **economic** problem for the local people.

.....

.....

(1)

(iii) How much would it cost the government to build **four** new nuclear power stations?

.....

(1)

(Total 8 marks)

Q4



5. (a) Look at Photographs A and B in the Resource Booklet. They show Hinkley Point B nuclear power station in Somerset, England.

(i) The paragraph below describes some advantages of this location for a nuclear power station.

**Complete the paragraph** below.

Choose the correct two words from the box.

large	rock	water	small
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Hinkley Point B nuclear power station was built on the coast, so it could get large amounts of ..... for cooling. The land was flat, and there was enough space for the very ..... buildings. (2)

(ii) Describe the impact (effects) of this power station on the **environment**.

.....  
.....  
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.....  
.....  
.....  
..... (3)

(b) Look at Photographs C and D in the Resource Booklet. They show Rheidol wind farm in Wales.

(i) The paragraph below describes some advantages of this location for a wind farm.

**Complete the paragraph** below.

Choose the correct two words from the box.

great	floodplain	low	hill
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Rheidol wind farm was built on a ....., so it could receive strong winds from all directions. The land was rough pasture, which shows that it had ..... value for farming. (2)





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(ii) The farmer who owned the land was **for** the wind farm.

Suggest **one** reason why.

.....  
.....

(1)

(iii) Some local people were **against** the wind farm.

Suggest why.

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.....  
.....  
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(2)

Q5

(Total 10 marks)

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6. (a) Look at Figure 11 in the Resource Booklet. It gives information about energy efficiency in the UK.

(i) How much of the energy used in UK homes is wasted?

.....

(1)

(ii) What does energy **conservation** mean?

.....

.....

(1)

(b) Look at the diagram of a house with green technologies.

(i) From the diagram, name **two** methods of **reducing heat losses** from a house.

1 .....

2 .....

(2)

(ii) Choose **one** of the following:

**solar panel**

**wood-fuel boiler**

**bio-fuel car**

Explain why it is described as a **green** technology.

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(4)

Q6

(Total 8 marks)



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7. The UK government has four possible ways of dealing with the country's future energy situation.

- Policy A: Reduce the population
- Policy B: Encourage the development of more wind farms
- Policy C: Build more nuclear power stations
- Policy D: Encourage more energy-efficient houses and transport

Look at Figure 13 in the Resource Booklet for more details of these options.

**Two** of these policies will be carried out.

(a) Which **two** policies do you think would be best?

Policies chosen

1 .....

2 .....

Explain why you have chosen these **two** policies.

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