

Leave
blank

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

1. Study Figure 2 in the Resource Booklet. It shows the components of population change in the UK.

(a) Explain the meaning of the terms

natural increase

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

net migration

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

(2)

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

.....

(1)

(c) By how much did the UK's population grow in 2002?

Circle the **correct** answer.

60,000 90,000 100,000 150,000 210,000

(1)

Q1

(Total 4 marks)



Leave
blank

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

Describe three **changes** in the UK's consumption of energy between 1980 and 2003. **Use data** in your answers.

1

.....

2

.....

3

.....

(3)

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

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

.....

.....

(1)

- (ii) Figure 5 shows eight sources of renewable energy.

Write them in rank order.

Start with the source that produces most energy.

The first has been done for you.

1 **Landfill gas**

5

2

6

3

7

4

8

(2)



Leave
blank

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

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(4)

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

(i) The UK's production of electricity grew between 1990 and 2003.

By how much did it grow?

.....

(1)



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

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

.....

.....

.....

.....

.....

.....

.....

.....

.....

(3)

(Total 14 marks)

Leave
blank

Q2



Leave blank

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

Describe three **main** changes in **oil** production between 1980 and 2003.

1

.....

2

.....

3

.....

(3)

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

(i) What is meant by a **net exporter** of oil?

.....

.....

(1)

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

State **two** problems this might cause for the UK.

.....

.....

.....

.....

(2)

Q3

(Total 6 marks)



Leave blank

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

(i) Which type of wind turbine had the greater generating capacity in 2004, onshore or offshore?

.....

(1)

(ii) Wind turbines only operate when wind speeds are between 10 and 50 mph.

Explain why this is a **disadvantage** of wind power.

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

(2)

(iii) How much of Europe's potential off-shore wind energy production does the UK have?

.....

(1)

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

.....

(1)

(Total 7 marks)

Q4



Leave
blank

5. (a) Study Photograph B in the Resource Booklet. It shows the area around Hinkley Point B nuclear power station in Somerset, England.

Explain why this is a good **location** for a nuclear power station.

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

(3)

- (b) Study Photograph D in the Resource Booklet. It shows the area around Rheidol wind farm, near Aberystwyth in mid-Wales.

Explain why this is a good **location** for a wind farm.

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

(2)





Leave blank

(c) Study Photographs A and B together with Photographs C and D.

Compare the nuclear power station and the wind farm in terms of their effects on the **environment**.

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

(6)

(Total 11 marks)

Q5

--	--

--

9

Turn over



Leave blank

6. (a) Study 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) Cross out the **wrong** word in the following passage.

The government subsidy for renewable energy costs 2.5 pence per KWh of electricity produced.

This gives **better**
poorer value for money than the grants given by the government for energy conservation.

(1)

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

Choose **either** a bio-fuel car **or** a wood-fuel boiler.

Chosen technology

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

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

(4)

(Total 6 marks)

Q6



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

Figure 13 in the Resource Booklet gives more details of these options.

Two of these policies will be carried out.

Which **two** policies do you think would be best?

Policies chosen

1

2

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

and

why you did **not** choose the others.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....





Leave
blank

A large rectangular area with 25 horizontal dotted lines for writing.



Leave blank

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Q7

--	--

(Total 12 marks)

TOTAL FOR PAPER: 60 MARKS

END



M 2 2 5 6 4 A 0 1 3 1 6

BLANK PAGE



BLANK PAGE



BLANK PAGE

