AQA GCSE BIOLOGY (HIGHER) · 8461

BIOLOGY



EXAM QUESTION PACK

4.7.3 BIODIVERSITY AND THE EFFECT OF HUMAN INTERACTION ON ECOSYSTEMS (PACK 3)

SCORE	PERCENTAGE
/35	%

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Q1.

The figures below show the levels of carbon dioxide in air from 150 000 years ago.

TIME	CARBON DIOXIDE CONCENTRATION
1500 years ago	270 parts per million
1800 AD	290 parts per million
1957	315 parts per million
1983	340 parts per million

(a) Explain why carbon dioxide levels in the atmosphere are changing.

_____

_____

_____

_____

_____

(3)

(b) It is suggested that the increased level of carbon dioxide in the air is causing the atmosphere to warm up (the "Greenhouse Effect").

Describe, as fully as you can, **two** major effects of global warming and how these may affect the human population.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

(6)

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(Total 9 marks)

Q2.

Some power stations burn coal to make electricity.
Smoke and waste gases go up the chimney.



Suggest **three** ways in which the smoke and waste gases from a power station can damage the environment.

1. _____

_____

2. _____

_____

3. _____

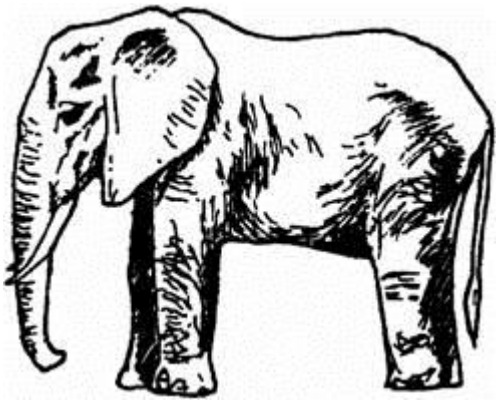
_____

(Total 3 marks)

Q3.

The elephant is likely to become extinct in parts of Africa.

Use the information below to explain **three** reasons why.



* The African elephant eats lots of trees and other plants for food.
* In Africa the human population is increasing and more food is needed to feed the extra people.
* More trees are cut down for fuel and to clear land for growing crops.
* Elephants are killed by poachers who want the ivory from their tusks.
* A herd of elephants needs a large area in which to live and feed.

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1. _____

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2. _____

_____

3. _____

_____

(Total 3 marks)

Q4.

The table below shows a wheat farmer's calendar.

October	Winter Wheat is sown and germinates. Phosphate/potash fertiliser is applied.
March	Wheat plants resume growth. Nitrate fertiliser is applied.
April	Ammonium nitrate, the main fertiliser, is applied. Fungicide may be sprayed to control mildew or rust on wheat.
May	Extra ammonium nitrate fertiliser may be applied. A second spraying of fungicide may be needed. Dwarfing hormone sprayed to keep wheat straw (stalks) short.
June	Insecticide spray against aphids may be needed. Extra spraying of fungicide may be needed.
August	Wheat is harvested.
August/ September	Ground sprayed with weedkiller. Stubble (remains of wheat plants) is ploughed in ready for the next crop.

This process uses expensive fertilisers and pesticides to grow pest free crops which may be produced in excess.

What are the reasons for and against growing wheat in this way?

For _____

_____

_____

(3)

Against _____

_____

_____

(4)

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(Total 7 marks)

Q5.

200 years ago there were fewer people in Britain. Much of the land was countryside where wild animals and plants lived.
The number of humans has increased greatly since then.

Describe **three** different ways in which people have reduced the amount of land for wild animals and plants.

1. _____

2. _____

3. _____

(Total 3 marks)

Q6.

The following statement appeared in a popular journal. “Removal of tropical rainforests, more rice fields and greater industrialisation may be causing an increase in the ‘greenhouse effect’.”

Explain this statement as fully as you can.

_____

_____

_____

_____

_____

_____

(Total 5 marks)

Q7.

The following passage is from a newspaper report on a recent conference about global warming.

> If we keep pumping out greenhouse gases, islands in the Pacific will disappear; droughts in Africa will bring famine to 50 million people; floods in low lying places like Bangladesh will make 200 million people homeless; Venice will be submerged:

(a) Name **one** major greenhouse gas.

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_____

(1)

(b) Explain how greenhouse gases may cause effects like those described in the passage.

_____

_____

_____

_____

(4)

(Total 5 marks)

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