<u>AQA - Biodiversity and the effect of human interaction on ecosystem – GCSE Combined Science Biology</u>

May/2020/Pap	er_2F/No.3	
0 3	Mineral ions are important chemicals in an ecosystem.	
0 3.1	Plants take in nitrate ions dissolved in water.	
	Which part of a plant takes in nitrate ions?	[1 mark]
0 3.2	Name two chemicals that are cycled between plants, the soil and the air.	
	Do not refer to nitrogen or nitrates in your answer.	[2 marks]
	1	
	2	

All the chemicals in a plant are recycled when the plant dies.

0 3 . 3

Describe how:	
 microorganisms recycle chemicals 	
 the chemicals are used again by new plants. 	

May/2020/Pap	per_2F/No.5		
0 5	This question is about biodiversity.		
	A farmer:		
	 grows only wheat crops 		
	• has used all his small fields to make a	few large fields	
	• cuts down trees in his woodlands to b	urn as fuel.	
0 5.1	What are two ways the farmer could inc	rease biodiversity on his farm?	[2 marks]
	Tick (✓) two boxes.		-
	Cut down trees to grow wheat		
	Plant hedgerows around his fields		
	Plant many different crops in his fields		
	Put fences around his fields		
	Put fertiliser on his wheat crop		

	Students investigated the effect of cutting down trees in the woodland.
	This is the method used.
	1. Mark out a 10 m by 10 m area where trees have been removed.
	2. Place a 1 m × 1 m quadrat at six random positions in the area.
	3. Record the number of plant species present.
	4. Record the number of invertebrate species seen among dead leaves on the ground.
	5. Repeat steps 1 to 4 in an area where there are trees.
0 5.2	Suggest one improvement the students could make to their method. [1 mark]
0 5 . 3	The students made this prediction:
	'There will be more invertebrate species living in the area where there are trees.'
	Explain why the students' prediction may be correct. [2 marks]

Table 1 shows the students' results.

Table 1

	Number of plant species		Number of invertebrate species	
Quadrat	Area with no trees	Area with trees	Area with no trees	Area with trees
1	8	2	4	10
2	6	2	3	6
3	7	0	4	8
4	6	3	5	14
5	20	4	2	9
6	8	1	6 13	
Mean	7	2	4	10

4	6	3	5	14	
5	20	4	2	9	
6	8	1	6	13	
Mean	7	2	4	10	
0 5 . 4	The students decided Draw a ring around to			[1 ma	ırk]
0 5 . 5	How does removing dead leaves on the g		nber of invertebrate sp	ecies living among th	

0 5 . 6	There were more plant species growing in the area where there were no trees.		
	Explain why. [3 marks]		
	[5 marks]		

May/2020/Pap	er_2H/No.3	
0 3	There is a need to grow enough food for all the people in the world.	
	Growing enough food affects habitats and biodiversity.	
0 3.1	What is meant by the term biodiversity?	[1 mark]
	Peat bogs are being destroyed because peat is used by humans.	
	Destroying peat bogs also reduces biodiversity.	
0 3.2	Give one use of peat taken from peat bogs.	[1 mark]
0 3.3	Explain why the use of peat is harmful to the environment.	
	Do not refer to biodiversity in your answer.	
		[2 marks]

0 3.4	Intensive farming, where a single crop is grown on a large area of land year after year, is more cost effective for farmers.
	It is efficient to use fertilisers and to burn the waste so the land is ready to use the next year.
	Planting a single crop reduces biodiversity.
	Suggest two ways that this type of farming can damage the environment.
	Do not refer to biodiversity in your answer. [2 marks]
	1
	2
0 3.5	Most of the world's production of antibiotics is used in farming.
	Antibiotics are given to animals to prevent the spread of disease.
	Explain how the widespread use of antibiotics in farming is a threat to human life. [4 marks]

May/2020/Pap	per_2H/No.7
0 7	Human activities affect the environment.
0 7.1	Describe the reasons why deforestation takes place and the effects deforestation has on the environment.
	[6 marks]

Forests have been called:

'The lungs of the planet.'

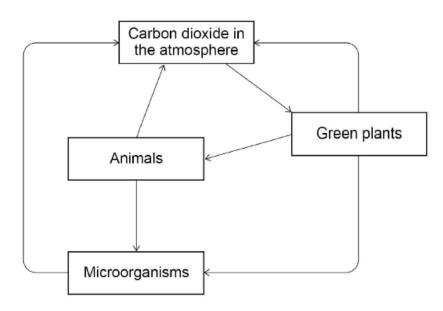
0 7.2	Describe one way forests being called 'The lungs of the planet' can be considered a correct statement.	sidered to
	be a correct statement.	[1 mark
0 7.3	Trees do not have lungs.	
	Describe one other way forests being called 'The lungs of the planet' is an incorrect statement.	
	an meorrest statement.	[1 mark

June/2019/Pap	per_2F/No.7	
0 7	There has been a rapid increase in the percentage of carbon dioxide in the atmosphere since 1960.	
0 7.1	Carbon dioxide is a greenhouse gas that contributes to global warming.	
	Name one other greenhouse gas.	[1 mark
0 7.2	Global warming causes climate change.	
	Give two effects of climate change.	[2 marks
	1	
	2	

0 7. 3 Plants take in carbon dioxide from the atmosphere.

Figure 7 shows part of the carbon cycle.

Figure 7



Describe how carbon from the atmosphere is cycled through living organisms.

[6 marks]

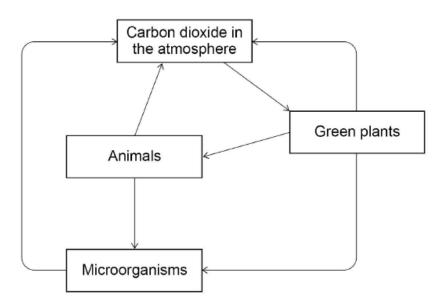
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June/2019/Pap	er_zH/No.2	
0 2	There has been a rapid increase in the percentage of carbon dioxide in the atmosphere since 1960.	
0 2 . 1	Carbon dioxide is a greenhouse gas that contributes to global warming.	
	Name one other greenhouse gas.	[1 mark]
0 2.2	Global warming causes climate change.	
	Give two effects of climate change.	[2 marks]
	1	
	2	

0 2 . 3 Plants take in carbon dioxide from the atmosphere.

Figure 2 shows part of the carbon cycle.

Figure 2



Describe how carbon from the atmosphere is cycled through living organisms.

[6 marks]

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