

## Rural environments- 2

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Date: \_\_\_\_\_

Time:

Total Marks Available:

Total Marks Archived:

Level: IGCSE Mathematics A

Subject: Geography

Exam Board: Edexcel IGCSE Geography- it is however suitable for use by mathematics student of other boards

Topic: Rural environments -2

Type: Mark Scheme

To be used by all students preparing for Edexcel IGCSE Geography- Students of other Boards may also find this useful



## Mark Scheme

Q1.

Question number	Indicative content
	<p style="text-align: center;"><b>AO3 (4 marks)/AO4 (4 marks)</b></p> <p><b>Marking instructions</b> Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p><b>Indicative content guidance</b> The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p> <p><b>Factors rural change developing countries</b> AO3</p>



	<ul style="list-style-type: none"><li>• There are a range of economic, social and environmental factors that are leading to change in rural areas in developing countries.</li><li>• In many developing countries rural areas are experiencing labour shortages as people often migrate to cities to look for work with the prospect of higher wages than they could get working on farms.</li><li>• For some rural areas environmental factors are facilitating greater change. The impacts of climate change are already affecting some areas, with increasing droughts making it more difficult to grow crops. Some farmers are trying to find alternative crops to grow in a changing climate, or for example moving to more drought resistant crops varieties.</li><li>• There are many organisations that are trying to support changes in rural areas in developing countries. Many NGOs try to support local communities, sometimes through donation of money, equipment or expertise. Where farming methods are still very labour intensive, sometimes the shift to using technology such as tractors can support a shift to more intensive farming which can increase profits and move towards more than subsistence farming.</li></ul>
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	<p><b>AO4</b></p> <ul style="list-style-type: none"><li>• Figure 2c indicates that NGO activity can facilitate change, sometimes through the donation of machinery which can support increasing crop yields.</li><li>• Figure 2c suggests that there are labour supply issues as it states that many people have moved to the cities to look for work.</li><li>• Figure 2c indicates that there are environmental issues facing farmers, with increasing drought conditions making farming more challenging.</li></ul>
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Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1-3	<ul style="list-style-type: none"><li>Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3)</li><li>Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)</li></ul>
Level 2	4-6	<ul style="list-style-type: none"><li>Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3)</li><li>Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)</li></ul>
Level 3	7-8	<ul style="list-style-type: none"><li>Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently leading to judgements that are supported by evidence throughout. (AO3)</li><li>Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)</li></ul>



Q2.

Question number	Indicative content
	<p style="text-align: center;"><b>AO3 (4 marks)/AO4 (4 marks)</b></p> <p><b>Marking instructions</b> Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p><b>Indicative content guidance</b> The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include the following.</p> <p><b>AO3</b></p> <ul style="list-style-type: none"><li>• Some areas in the world are experiencing a rapid growth in their population, largely due to a high rate of natural increase. This puts pressure on the food supply and may prompt stakeholders to increase the amount of agricultural land area to ensure that supply meets demand.</li><li>• Some areas of the world may have experienced an increase in wars, natural hazards and/or diseases in recent years, such as AIDS and other epidemics, which raise the death rate. This means that there are fewer older people to work in the fields to produce food and, therefore, the land area used for agriculture could be reduced.</li><li>• Environmental degradation may have increased in some areas, which reduces the amount of available land for agriculture. As people seek to produce food and earn income from the land, more vulnerable land is used. The processes of desertification and deforestation mean that the environment degrades so that it is no longer suitable for agriculture.</li><li>• Increase in globalisation/tourism in some rural environments brings money into the area and may help improve local infrastructure, which may allow previously unused land to be used for agricultural purposes.</li><li>• Increased deforestation in some parts of the world have increased the amount of land available for farming.</li><li>• As an area becomes more developed, the use, availability and affordability of technology, e.g. machinery, genetically-modified (GM) crops, fertilisers, irrigation systems, herbicides and pesticides, increases and so does the amount of land that can be used for agriculture.</li><li>• Possible impacts of climate change, e.g. temperature/rainfall, may increase or decrease the land area in a region that is used for agriculture.</li></ul>



	<p><b>AO4</b></p> <ul style="list-style-type: none"><li>• In general, there is a broad split between areas with a decrease in agricultural area in developed countries and an increase in agricultural area in developing/emerging countries.</li><li>• The continents of Africa and South America have the largest areas that have seen an increase in agricultural land. However, there are some countries, e.g. South Africa/Namibia in Africa and Colombia/Ecuador in South America, which have had a decrease in agricultural land area.</li><li>• The majority of North America and Europe have seen a decrease in agricultural land area. However, there are some small pockets in these continents, e.g. the Republic of Ireland, where there has actually been an increase in agricultural land area.</li><li>• Several countries in South America, e.g. Bolivia/Peru, Africa, e.g. Botswana/Egypt, and Asia, e.g. North Korea/Afghanistan, have had little change in the amount of land used for agriculture.</li></ul>
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Q3.

Question number	Answer	Mark
	<p style="text-align: center;"><b>AO1 (1 mark)</b></p> <ul style="list-style-type: none"><li>• An impact / cause / factor / trigger which causes a bad / negative income on the overall economy of an area (1).</li><li>• A problem that leads to / triggers other issues or problems occurring (1)</li><li>• A spiral of decline that creates other issues, e.g. depopulation or lowers development and investment (1)</li><li>• A chain of events that leads to a negative impact on the people / economy of an area (1).</li><li>• Decline in one area creates decline in another area, e.g. negative feedback loop (1)</li></ul> <p>Accept any other appropriate response.</p> <p><b>Note: Do not accept “downwards spiral of decline” or “keeps getting worse over time” just on its own.</b></p>	<b>(1)</b>



Q4.

Question number	Answer	Mark
	<p style="text-align: center;"><b>AO2 (2+2 marks)</b></p> <p>Award 1 mark for initial explanation and an additional 1 mark for development through further explanation or exemplification. Maximum of 2 marks total when no named developed country is used in context.</p> <p>A range of countries and strategies could be chosen.</p> <ul style="list-style-type: none"><li>• [Vineyard] In Surrey, UK the conversion of cereal crops to grapes for wine (1) has increased the farms profitability per unit area of land (1).</li><li>• [Camping] In France many farmers have converted parts of their farm to cater for campers (1) which has allowed them to offer special family-friendly holidays, close to nature (1).</li></ul> <p>Accept any other appropriate response.</p>	<b>(4)</b>

Q5.



Question number	Answer	Mark
	<p style="text-align: center;"><b>AO2 (4 marks)</b></p> <p>Award 1 mark for a reason and a further expansion mark, up to a maximum of 2 marks each.</p> <p>A range of countries and examples could be chosen, based on either social, economic or environmental problems.</p> <ul style="list-style-type: none"><li>• [India] have incentivised change and particular land management as well as agricultural expansion (1) by supporting farmers with loans and subsidies (1).</li><li>• [Bangladesh] some local and regional agencies have supported diversification by offering micro-financing schemes (1) this has allowed the communities to build schools whilst being supported with a financial safety-net (1).</li><li>• [Morocco] farmers are paid to transform their landscape to make it more vegetated and less prone to soil erosion risk (1). This has allowed the better planning and management of environmental landslide hazards (1).</li></ul> <p>Accept any other appropriate response.</p>	<b>(4)</b>

Q6.



Question number	Answer	Mark
	<p style="text-align: center;"><b>AO2 (4 marks)</b></p> <p>Award 1 mark for an approach and a further expansion mark, up to a maximum of 2 marks each.</p> <ul style="list-style-type: none"><li>• Some governments have incentivised change and particular land management (1) e.g. CAP supporting prices for some farmers (1).</li><li>• Some governments and agencies have supported diversification by offering grants and set-up costs (1) this has allowed the farmer to change land practice through a financial safety-net (1).</li><li>• Farmers are paid to transform their landscape (1), e.g. there are government subsidies available for managing woodland for conservation (1).</li><li>• Some developers have been supported to set up new mineral extraction areas / quarries (1) which have facilitated through grants and planning restrictions (1).</li></ul> <p>Accept any other appropriate response, e.g. rural-urban migration or urban-rural migration, counter urbanisation, mechanisation of farming, increasing tourism, green-belt development.</p>	<b>(4)</b>

Q7.



Question number	Answer	Mark
	<p style="text-align: center;"><b>A02 (2 + 2 marks)</b></p> <p>Award 1 mark for a basic negative impact of tourism and a further 1 mark for a development of this point, up to maximum of 2 marks per explanation.</p> <ul style="list-style-type: none"><li>• Demand for new hotels in sensitive ecosystems (1) often results in habitat degradation (1).</li><li>• Footpath erosion (1) due to large volumes of walkers trampling on vegetation (1).</li><li>• Littering has increased (1), creating visual pollution (1).</li><li>• Traffic congestion (1) as some country roads are not made to withstand large volumes of traffic (1).</li><li>• Conflict between tourists and local residents (1) as the tourist might be parking on pavements/creating noise pollution (1).</li><li>• Increased levels of air pollution (1) due to the increased volume of vehicles coming into the area (1).</li><li>• Price increases in local shops (1) as shopkeepers take advantage of tourists willing to pay more for goods (1).</li></ul> <p>Accept any other appropriate response.</p>	<b>(4)</b>



Q8.

Question number	Answer	Mark
	<p style="text-align: center;"><b>A02 (2 +2 marks)</b></p> <p>Award 1 mark for a suitable way rural-urban migration affects rural areas with a further mark for explanation, up to maximum of 2 marks.</p> <ul style="list-style-type: none"><li>• Increased number of rural-urban migrants (particularly males) means many rural communities have a shortage of workers (1) which makes it difficult to manage farms (1).</li><li>• Increased money being sent back to rural areas through remittances (1) as rural migrants are keen to support their families (1).</li><li>• Loss of services (1) as not enough people to support their operation (1).</li></ul> <p>Accept any other appropriate response.</p>	<b>(4)</b>

Q9.

Question number	Answer	Mark
	<p style="text-align: center;"><b>A01 (1 mark)</b></p> <p>C      Population movement from urban to rural areas</p>	<b>(1)</b>



Q10.

Question number	Answer	Mark
(i)	<p style="text-align: center;"><b>AO1 (1 mark)</b></p> <ul style="list-style-type: none"><li>• clean air</li><li>• clean water</li><li>• maintenance of biodiversity</li><li>• decomposition of wastes</li><li>• soil and vegetation generation and renewal</li><li>• pollination of crops and natural vegetation</li><li>• groundwater recharge</li><li>• seed dispersal</li><li>• greenhouse gas mitigation</li><li>• timber products and crop</li></ul> <p>Note there is a wide range acceptable.</p>	(1)

Question number	Answer	Mark
(ii)	<p style="text-align: center;"><b>AO1 (2 marks)</b></p> <p>A coniferous forest D tundra</p>	(2)

Q11.



Question Number	Answer	Mark
	<p style="text-align: center;"><b>A01 (1 mark) / (A03) 2 marks</b></p> <p>Award 1 mark for an identification of a trend and a further 2 marks for extension through explanation or description, up to a maximum of 3 marks.</p> <ul style="list-style-type: none"><li>• There has been a decrease in the percentage of people working in agriculture between 1991-2019 (1). From around 6%-3% in France (1). This may be due to fewer people willing to work in low wage agricultural jobs (1).</li><li>• There has been a decrease in the percentage of people employed in agriculture between 1991-2019 (1) but it is only a small decrease, around 0.2% for the USA (1), because the country has already shifted to more employment in other sectors (1).</li></ul> <p>Accept any other appropriate response.</p>	<b>(3)</b>



Q12.

Question number	Answer	Mark
(i)	<p style="text-align: center;"><b>A03 (1 mark)</b></p> <p>Award 1 mark for an X in the box next to the 5-9 age category in the 1980 population pyramid (1).</p>	<b>(1)</b>

Question number	Answer	Mark
(ii)	<p style="text-align: center;"><b>A02 (1 mark)</b></p> <p>B 20-24 Urban.</p> <p>All other options are less than the 20-24 age group so are incorrect.</p>	<b>(1)</b>

Question number	Answer	Mark
(iii)	<p style="text-align: center;"><b>A02 (1 mark)</b></p> <ul style="list-style-type: none"> <li>• Cheaper land outside of city centres (1)</li> <li>• Decline of the inner city (1)</li> <li>• Transport links (1)</li> <li>• Crime rates (1)</li> <li>• Concerns about air pollution (1)</li> </ul> <p>Accept any other appropriate response.</p>	<b>(1)</b>



Q13.

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(i)	<p style="text-align: center;"><b>AO3 (4 marks)/AO4 (4 marks)</b></p> <p><b>Marking instructions</b> Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below.</p> <p><b>Indicative content guidance</b> The indicative content below is not prescriptive and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. Relevant points may include:</p>



**A03**

- Biomes are large-scale environments that are distinguished by characteristic temperature ranges and amounts of precipitation.
- These two variables are, in most instances, the dominant controls which affect the types of vegetation and animal life that can exist in those areas.
- Because each biome is defined by climate, the same biome can occur in geographically distinct areas with similar climates.
- Other local factors may also be important in limiting distribution such as altitude and the direction a slope is facing (aspect).
- The influence of people and human activity (e.g. deforestation, land drainage, soil improvement etc) can also disrupt the model that is presented in Figure 2c.

**A04**

- Figure 2c shows temperature and precipitation control types of biome found globally.
- On Figure 2c there are eight major terrestrial biomes: tropical rainforests, savannas, subtropical deserts, chaparral, temperate grasslands, temperate forests, boreal forests, and Arctic tundra.
- On Figure 2c, there is a relationship between biome type and both precipitation and temperature.
- On Figure 2c deserts are found in the driest and hottest locations whereas tundra is found only in moderately dry and cold environments.
- Figure 2c shows that tropical and temperate rainforests need lots of precipitation and warm temperatures.



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Q14.

Question number	Answer	Mark
	<p>A the outward growth of urban development</p> <p>A is the correct answer as the other options are related to other processes, e.g. urbanisation</p>	(1)



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