



National
Qualifications
2026

2026 Geography

National 5

Question Paper Finalised Marking Instructions

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General marking principles for National 5 Geography

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this paper. These principles must be read in conjunction with the detailed marking instructions, which identify the key features required in candidate responses.

- (a) Marks for each candidate response must **always** be assigned in line with these general marking principles and the detailed marking instructions for this assessment.
- (b) Marking should always be positive. This means that, for each candidate response, marks are accumulated for the demonstration of relevant skills, knowledge and understanding: they are not deducted from a maximum on the basis of errors or omissions.
- (c) If a specific candidate response does not seem to be covered by either the principles or detailed marking instructions, and you are uncertain how to assess it, you must seek guidance from your team leader.
- (d) For credit to be given, points must relate to the question asked.
- (e) There are six types of question used in this question paper, namely
 - A Describe . . .
 - B Explain . . .
 - C Give reasons . . .
 - D Match . . .
 - E Give map evidence . . .
 - F Give advantages and/or disadvantages . . .

For each of these question types, the following provides an overview of marking principles and an example of their application.

A Questions that ask candidates to *Describe* . . . (4-6 marks)

Candidates must make a number of relevant, factual points. These should be key points. The points do not need to be in any particular order. Candidates may provide a number of straightforward points or a smaller number of developed points, or a combination of these.

Up to the total mark allocation for this question

- award **1 mark** for each accurate relevant point
- award **further marks** for development and exemplification.

For example

Question: Describe, in detail, the effects of two of the factors shown. (Modern factors affecting farming.)

Response: New technology has led to increased crop yields, (**1 mark**) leading to better profits for some farmers. (**second mark for development**)

B Questions that ask candidates to *Explain* . . . (4-6 marks)

Candidates must make a number of points that make the process/situation plain or clear, for example by showing connections between factors or causal relationships between events or processes. These should be key reasons and may include theoretical ideas. There is no need for any prioritising of these reasons. Candidates may provide a number of straightforward reasons or a smaller number of developed reasons, or a combination of these. The command word 'explain' is generally used when candidates are required to demonstrate knowledge and understanding.

Award up to full marks for sufficiently accurate and detailed, fully labelled diagrams.

Up to the total mark allocation for this question

- award **1 mark** for each accurate relevant point
- award **further marks** for developed explanations.

For example

Question: Explain the formation of a U-shaped valley.

Response: A glacier moves down a main valley which it erodes (**1 mark**) by plucking, where the ice freezes on to fragments of rock and pulls them away. (**second mark for development**)

C Questions that ask candidates to *Give reasons* . . . (4-6 marks)

Candidates must make a number of points that make the process/situation plain or clear, for example by showing connections between factors or causal relationships between events or processes. These should be key reasons and may include theoretical ideas. There is no need for any prioritising of these reasons. Candidates may provide a number of straightforward reasons or a smaller number of developed reasons, or a combination of these. The command words 'give reasons' are generally used when candidates are required to use information from sources.

Up to the total mark allocation for this question

- award **1 mark** for each accurate relevant point
- award **further marks** for developed reasons.

For example

Question: Give reasons for the differences in the weather conditions between Belfast and Stockholm.

Response: In Stockholm it is dry but in Belfast it is wet, because Stockholm is in a ridge of high pressure whereas Belfast is in a depression. (**1 mark**) Belfast is close to the warm front and therefore experiencing rain. (**Second mark for development**)

D Questions that ask candidates to *Match* . . . (3-4 marks)

Candidates must match two sets of variables by using their map interpretation skills.

Up to the total mark allocation for this question

- award **1 mark** for each correct answer.

For example

Question: Match the letters A to C with the correct features.

Response: A = forestry. (**1 mark**)

E Questions that ask candidates to *Give map evidence* . . . (3-4 marks)

Candidates must look for evidence on the map and make clear statements to support their answer.

Up to the total mark allocation for this question

- award **1 mark** for each correct statement.

For example

Question: Give map evidence to show that part of Coventry's CBD is located in grid square 3379.

Response: Many roads meet in this square. (1 mark)

F Questions that ask candidates to *Give advantages and/or disadvantages* . . . (4-6 marks)

Candidates must select relevant advantages or disadvantages of a proposed development and show understanding of their significance to the proposal. Answers may give briefly explained points or a smaller number of developed points. Award marks for accurate map evidence.

Up to the total mark allocation for this question

- award **1 mark** for each accurate relevant point
- award **further marks** for developed points.

For example

Question: Give either advantages or disadvantages of this location for a shopping centre. You must use map evidence to support your answer.

Response: There are roads and motorways close by allowing the easy delivery of goods (1 mark) and access for customers, (second mark for development) for example the A46, M6 and M69.

Marking instructions for each question

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
1.	(a)		Award 1 mark for each correct answer.	3	• Corrie: 222916 • Pyramidal Peak: 211922 • U-shaped valley: 335929
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point. Well-annotated diagrams can obtain full marks. Award 1 mark for a series of diagrams that show progression. Award a maximum of 1 mark for a list of processes. Award a maximum of 3 marks for erosion processes including the list. No marks awarded for corrie loch/tarn or misfit stream/ribbon lake. If more than one feature is explained, mark them all and award marks for the highest scoring feature.	5	If Corrie is chosen: • snow accumulates in a hollow and compresses turning to ice (1 mark) The ice/glacier moves downhill due to gravity and erodes the land (1 mark) • the ice erodes the rock by plucking and abrasion (1 mark) • plucking is when the ice freezes onto rocks and when the ice moves it rips the rocks out (1 mark) • abrasion is when rocks frozen in the ice scrape away the landscape as the glacier moves (1 mark) • these processes make the hollow wider and steeper (1 mark) • freeze thaw action breaks down rocks when water enters a crack, freezes and expands many times (1 mark) causing material to be incorporated into the ice increasing erosion (1 mark) • the rotational movement of the glacier over deepens the hollow creating a rock lip (1 mark) • the ice melts leaving an over-deepened hollow with a steep-backed wall (1 mark) Or any other valid point. If Pyramidal Peak is chosen: • snow accumulates in hollows and compresses turning to ice, forming glaciers (1 mark) The ice moves downhill due to gravity and erodes the land (1 mark) • A pyramidal peak forms when three or more corries form around a mountain (1 mark) • the glaciers eroded backwards towards each other removing rocks (1 mark) using the processes of plucking and abrasion (1 mark) • plucking is when the ice freezes onto rocks and when the ice moves it rips the rocks out (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• abrasion is when rocks frozen in the ice scrape away the landscape as the glacier moves (1 mark) • as the glaciers erode backwards into the mountain the corries get bigger forming sharp arêtes which meet at a pyramidal peak (1 mark) • freeze-thaw weathering erodes the top of the mountain creating a jagged peak (1 mark) Or any other valid point. If U-Shaped Valley is chosen: • snow accumulates in a hollow and compresses turning to ice forming a glacier (1 mark) The ice moves downhill due to gravity and erodes the land (1 mark) • the glacier flows through a V-shaped river valley eroding it (1 mark) by the processes of plucking and abrasion (1 mark) • plucking is when the ice freezes onto rocks and when the ice moves it rips the rocks out (1 mark) • abrasion is when rocks frozen in the ice scrape away the landscape as the glacier moves (1 mark) • freeze thaw action breaks down rocks when water enters a crack, freezes and expands many times (1 mark) causing material to be incorporated into the ice increasing erosion (1 mark) • these processes make the valley wider and deeper (1 mark) • the ice melts leaving a flat-floored U-shaped valley (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
2.	(a)		Award 1 mark for each correct answer.	3	• Meander: 315893 • Waterfall: 325943 • V-Shaped Valley: 298918
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point. Well-annotated diagrams can obtain full marks. Award 1 mark for a series of diagrams that show progression. Award a maximum of 1 mark for a list of processes. Award a maximum of 3 marks for erosion processes including the list. No marks awarded for ox-bow lake or gorge. If more than one feature is explained, mark them all and award marks for the highest scoring feature.	5	Answers will depend on the feature selected: If Meander is chosen: • rivers rarely flow in a straight channel resulting in water flowing from side to side (meandering) (1 mark) • water in the river flows faster on the outside eroding the riverbank (1 mark) to form a river cliff (1 mark) • the cliff is undercut by hydraulic action and corrasion (1 mark) • corrasion/abrasion is caused by bedload carried in the fast flow, rubbing against the bank wearing it away (1 mark) • hydraulic action also takes place where water gets into small cracks forcing pieces of rock to break off the riverbed and banks (1 mark) • on the inside bend the river flows more slowly causing it to deposit some of its load (1 mark) forming a slip-off slope/river beach (1 mark) • continual erosion on the outer bank and deposition on the inner bank forms a meander (1 mark) Or any other valid point. If waterfall is chosen: • waterfalls are found where hard rock overlies softer rock (1 mark) for example granite overlies mudstone (1 mark) • the water is powerful and erodes the softer rock more quickly than the harder rock (1 mark) • the river erodes through the processes of hydraulic action, corrosion and corrasion (1 mark) • corrasion/abrasion is caused by bedload carried in the fast flow rubbing against the rock wearing it away (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					- hydraulic action also takes place where water gets into small cracks forcing pieces of rock to break off the riverbed and banks (1 mark) - the softer rock is worn away forming a plunge pool and the harder rock is undercut (1 mark) - an overhang of hard rock is left suspended above the plunge pool (1 mark) - this collapses as there is nothing to support it and the rock falls into the plunge pool (1 mark) - rock fragments swirling around deepen the plunge pool (1 mark) - this process is repeated over a long period of time and the waterfall retreats upstream (1 mark) Or any other valid point. If V-Shaped valley is chosen: - a river flows downhill eroding the landscape vertically (1 mark) - the river erodes by hydraulic action and corrasion/abrasion (1 mark) cutting a deep notch/gully in the hillside (1 mark) - corrasion/abrasion is caused by bedload carried in the fast flow rubbing against the rock wearing it away (1 mark) - hydraulic action also takes place where water gets into small cracks forcing pieces of rock to break off the riverbed (1 mark) - the sides of the valley are exposed to freeze-thaw weathering which loosens the rocks and steepens the valley sides (1 mark) - the rocks which fall into the river aid the process of corrasion/abrasion increasing erosion (1 mark) - the river transports the rocks downstream and the channel becomes wider and deeper (1 mark) creating a V-shaped valley between interlocking spurs (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
3.			Award 1 mark for each correct answer.	3	• A = Coniferous Woodland • B = Electricity Transmission Line • C = Loch Oich
4.			Award 1 mark for each valid point. Award 2 marks for a developed point. Award 1 mark for a correct grid reference/named example from the OS Map. Answers must refer to map evidence, if not mark out of five. Award a maximum of 5 marks for any one land use. If suitability of more than two land uses is explained, then award marks for the best two.	6	If recreation and tourism chosen: • the area would be good because there are lots of opportunities for hillwalking and climbing (1 mark) such as Ben Tee/2497 (1 mark) • there are marked walks at Clunes Forest for visitors to explore (1 mark) • there is a picnic site at 286962 for visitors to enjoy their lunch (1 mark) • there is a caravan and campsite at 287018 for visitors to stay (1 mark) • there is an activity centre for tourists to enjoy activities (1 mark) • visitors who like history may enjoy viewing Invergarry Castle (in grid square 3100) (1 mark) If forestry chosen: • there are suitable areas for forestry such as South Laggan Forest (1 mark) as land is steep and trees can grow on the steep slopes (1 mark) and can survive on thin soils found there (1 mark) • these areas are suitable because there is good road access via the A82 for lorries to take timber away (1 mark) If water storage and supply chosen: • this area would be excellent for water supply as there are a number of natural lochs such as Loch Garry (1 mark) (GR 2302) and Loch Oich (GR 3201) • there are also steep narrow valleys which could be dammed for a reservoir (1 mark) • there are many streams and rivers flowing down from the mountains indicating that this area has plentiful rainfall to supply lochs/reservoirs (1 mark) If farming chosen: • sheep farming would be well suited to the area as sheep can survive on the steep slopes as they are sure-footed (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• sheep also have thick wool coats to survive the colder temperatures in upland areas (1 mark) • sheep are hardy and can survive on rough grazing found in hilly areas (1 mark) If renewable energy chosen: • there are many hills where its exposed and windy which is ideal for generating wind power (1 mark) • Loch Garry provides water which may be used to generate HEP (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
5.			Award 1 mark for each valid point. Award 2 marks for a developed point. No marks for description of conflicts. Award a maximum of 3 marks if no reference to specific named area. Answers depend on case study chosen. No marks for named examples linked to case study.	4	If Yorkshire Dales chosen: • National Park rangers patrol areas and can issue fines for littering (1 mark) • footpaths can be closed temporarily to allow the vegetation to recover (1 mark) • quarries can be screened by trees to reduce the visual pollution (1 mark) • blasting can be restricted to specific times reducing the noise disturbance to tourists (1 mark) • the limestone can be moved by train instead of road reducing congestion (1 mark) • the vehicles can be covered to reduce the amount of dust in the atmosphere (1 mark) • the lorries can be hosed before leaving the quarry to stop dust blowing away when transporting the limestone (1 mark) If Brecon Beacons chosen: • to reduce parking on grass verges additional car parks are provided (1 mark) • within the National Park visitors are encouraged to use public transport such as buses to reduce congestion (1 mark) • some rivers are zoned to allow different activities to take place and minimise disruption between users (1 mark) • rangers are employed to educate visitors on responsible tourism (1 mark) • wardens have been introduced to issue fines for dog fouling (1 mark) • visitors are encouraged to follow the Waterways Code protecting the environment (1 mark) If Dorset Coast chosen: • the Dorset Coast has been designated a World Heritage Site protecting the coast from over-development with strict planning controls (1 mark) • along the coastline nature reserves protect local wildlife to reduce the impact of tourists using the beaches (1 mark) • disco bins have been introduced at Poole to encourage visitors to dispose of their litter responsibly (1 mark) • rangers are employed to educate visitors on responsible tourism (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• footpath erosion has been resolved by placing cobbles on paths to make them more durable (1 mark) • in areas where military exercises take place signs are put up informing the public to avoid the area (1 mark) If Loch Lomond chosen: • speed limits have been put in place on the loch to reduce damage to the beaches caused by the wake of the boats (1 mark) • additional parking has been created by using farmers' fields to reduce traffic congestion caused by people parking on the narrow roads (1 mark) • laws have been introduced to stop wild camping at specific locations to reduce the number of wildfires (1 mark) • farmers install kissing gates which shut automatically preventing livestock escaping (1 mark) • walkers are encouraged to follow the Scottish Outdoor Access Code to minimise damage to footpaths (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
6.			Award 1 mark for each valid point. Award 2 marks for a developed point. Award 0 marks for description. Answers must refer to factors which affect average UK temperatures, not to factors which affect temperatures at one particular time, such as the passage of a depression or a tropical continental air mass. Credit references to urban heat islands. Award a maximum of 3 marks for one factor.	4	Latitude: - places in southern England are warmer because they are nearer the Equator (1 mark) - temperatures further to the north generally decrease because the sun's rays are less concentrated further away from the equator (1 mark) due to the curvature of the Earth (1 mark) Altitude: - upland areas are colder as temperatures decrease with increasing altitude (1 mark) at a rate of 1°C for every 100 metres gained in height (1 mark) Aspect: - in the northern hemisphere south facing slopes can be warmer because they receive more direct sunlight (1 mark) - north facing slopes are colder because they are affected more by cold northerly winds (1 mark) Distance from the sea: - places closer to the sea have warmer/milder winters and cooler summers because oceans heat up slowly in summer and cool slowly in winter (1 mark) - oceans store heat more efficiently than land, acting as 'thermal reservoirs' (1 mark) whereas places further inland have a greater annual range in temperature due to distance from the effects of the oceans (1 mark) - warm ocean currents e.g. the North Atlantic Drift, keep the temperatures warmer on the west coast than on the east coast of the UK (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
7.			Award 1 mark for each valid point. Award 2 marks for a developed point. Award a maximum of 4 marks for either location.	5	• there are 0 oktas of cloud cover over Madrid as high pressure brings clear skies (1 mark) • the temperature is high at 28°C in Madrid as it is high pressure in summer / August (1 mark) • there is a 5-knot wind as isobars are widely spaced over Madrid (1 mark) • there are no fronts over Madrid therefore it is dry (1 mark) • Inverness has 8 oktas of cloud cover as it is near a cold front (1 mark) • in Inverness there is a 30-knot wind speed as the isobars are close together (1 mark) • there is heavy rain over Inverness due to the cold front (1 mark) • there is a NW wind at Inverness as winds blow anti-clockwise in a low pressure system (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
8.	(a)		Award 1 mark for each valid point. Award 0 marks for features out with the grid square. No marks for grid references.	3	• it is located in the centre of the town (1 mark) • most main routes converge here (1 mark) • there is a bus station (1 mark) • there are many churches (1 mark) and a cathedral (1 mark) • there are tourist attractions such as museums (1 mark) Or any other valid point.
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point. Award 1 mark for map evidence. Award a maximum of 5 marks if no reference to map evidence. Answers must be explanatory. Award no marks for description. Award no marks for disadvantages/unsuitability of area. Award a maximum of 1 mark for reference to activities.	6	• there is flat land so it will be easy to build the houses on (1 mark) • the land is likely cheaper on the rural/urban fringe so bigger houses with gardens/garages can be built (1 mark) • the nearby A1 motorway (1 mark) will give good access for builders during construction (1 mark) • there is good road access to Durham's CBD via the A181 which people can use to commute to their work (1 mark) • there is a cycle route leading into the city for residents who prefer a greener mode of transport (1 mark) • there may be better air quality because it is away from Durham city centre (1 mark) • there are woods nearby at 312424, where residents can walk their dogs (1 mark) • there are nearby schools available for children living in the new houses (1 mark) Or any other valid point.
	(c)		Award 1 mark for 1 correct. Award 2 marks for 2 correct. Award 3 marks for 3 or 4 correct.	3	A – School B – Train station C – River Wear D – Cathedral

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
9.			1 mark for each valid point. 2 marks for a developed point. Mark out of 5 if no named city. Award a maximum of one mark for a list of newly built developments.	6	Answers will vary depending on case study chosen. If Glasgow chosen: • Glasgow City Council provides housing grants to renovate run down tenement housing (1 mark) • poor quality tower blocks have been demolished (1 mark) • the high-rise flats in the Gorbals have been replaced with secure and easily maintained properties (1 mark) • luxury apartments have been built on old brownfield sites, like Glasgow Harbour (1 mark) • in Tradeston unsightly derelict buildings have been renovated into spacious flats (1 mark) • new industries have developed on the riverside where the docks would have been (1 mark) • call centres have provided new jobs in the inner city (1 mark) • sporting venues such as the Emirates Arena provide more activities for locals (1 mark) • tourist attractions such as the Glasgow Science Centre have been built on derelict land (1 mark) • many new hotels have appeared in the gap sites left by the demolished factories (1 mark) • transport has been improved by creating new bus and cycle lanes (1 mark) • landscaping has improved the appearance of the environment along the River Clyde (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
10.			Award 1 mark for each valid point. Award 2 marks for a developed point. For full marks candidates must explain both physical and human factors, otherwise mark out of 5. Award 0 marks for description. No credit for reference to population growth ie birth/death rates. Award 0 marks for reverse points.	6	Physical factors: Relief: • flat, low-lying land is easier to build on, so people prefer to live there (1 mark) • many people live near coastal areas as trade can take place easily from ports located by the sea (1 mark) • less people live in upland areas as they are often too cold and wet to grow crops (1 mark) • mountainous areas have low population densities because it is difficult for machinery to operate on steep slopes (1 mark) and they are also often isolated which makes them hard to access (1 mark) Climate: • more people live in temperate climates where there is enough rainfall to provide a supply of water (1 mark) • areas with very high temperatures and low rainfall like the extreme climate of the Sahara Desert make farming difficult so few people live there (1 mark) • areas of permafrost make building houses and roads difficult so few people live there (1 mark) • rainforests are sparsely populated as they are uncomfortable to live in due to the humid climate (1 mark) Soil: • areas with fertile soils are more densely populated as crops can be grown to supply food (1 mark) • where there are poor quality soils few crops can be grown so these areas are more sparsely populated (1 mark) • few people live in hot desert areas because the soil and resulting vegetation make it difficult to keep animals (1 mark)

Question	General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
			Human factors: Employment: • jobs opportunities in urban areas encourage people to locate nearby to find work (1 mark) • cities attract more people as they offer a much wider range of employment and educational opportunities (1 mark) Transport: • higher population densities are found in areas with good transport links making them more accessible (1 mark) • places with good transport links have higher population densities as they attract industries which provide jobs (1 mark) Services: • more people live in towns and cities as they provide access to a variety of amenities and services such as health care and entertainment (1 mark) War: • war/unstable Governments causes lower population densities because it's unsafe for people to live there (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
11.			Award 1 mark for each valid point. Award 2 marks for a developed point. For full marks candidates must explain two changes. Award a maximum of 5 marks for any one change. Marks can be awarded for both positive and negative impacts. Accept different reasons for higher yields.	6	If new technology chosen: - the use of new technology like drones and GPS means that farmers can work more efficiently (1 mark) meaning less physical work for farmers (1 mark) - mechanisation can result in unemployment as machines do the work previously carried out by people (1 mark) this can lead to rural depopulation as people move away to find work (1 mark) - the cost of buying and maintaining machinery is expensive which many people in developing countries cannot afford and may get into debt (1 mark) so find it difficult to compete with those who can (1 mark) - the use of fertilisers and pesticides increase crop yields (1 mark), which leads to improved profits for the farmer (1 mark), this can then be used to improve their overall standard of living (1 mark) - increased yields allow a surplus to be produced, encouraging trade to take place (1 mark) - the use of irrigation channels can allow two or three harvests a year instead of one, this increases food supply (1 mark) - overuse of fertilisers and pesticides can be dangerous to people's health (1 mark) and pollutes water supplies (1 mark) - the increased use of machinery and chemicals has created new industries and jobs eg mechanics to fix tractors (1 mark) If GM seeds chosen: - the use of GM seeds gives farmers a more reliable harvest as the seeds are designed to resist disease (1 mark) - some GM seeds can be adapted to grow in adverse conditions for example lack of water ensuring a better food supply (1 mark) - some GM seeds reduce the need for pesticides which is less harmful to insects and bees (1 mark) - some GM seeds require a more reliable source of water/irrigation therefore increasing costs (1 mark) - to buy expensive GM seeds the poorest farmers must take out loans so they end up in debt (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• GM technology is controlled by multi-national companies which can lock farmers into unsustainable business partnerships (1 mark) • some people disagree with GM crops arguing that they may have a negative impact on the biodiversity of plant species (1 mark) If Biofuels chosen: • the production of biofuels can create jobs and stimulate economic growth in rural areas (1 mark) this provides people with money to improve their standard of living (1 mark) and helps to prevent rural depopulation (1 mark) • government incentives and higher prices for biofuel crops can improve farmers income (1 mark) • land once used for growing food can be lost to the production of biofuels (1 mark) leading to concerns about food insecurity and higher food prices (1 mark) • biofuels are a renewable source of energy which lowers reliance on fossil fuels (1 mark) however energy used to grow and process biofuels can be harmful to the environment (1 mark) • biofuels are a much cheaper alternative to fossil fuels therefore more farmers can afford them to run machinery (1 mark) however biofuels are not compatible with all vehicles and equipment so not widely adopted (1 mark) • biofuel digestors deal with animal and human waste making farms cleaner and people healthier (1 mark) biogas created this way can provide heat, power and electricity for homes at a very low cost (1 mark) • use of biogas reduces the need for deforestation for firewood (1 mark) it also provides a cleaner fuel reducing smoke from open fires improving living conditions in houses (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
12.	(a)		Award 1 mark for each valid point. Award 1 mark for a trend. Award 0 marks for highest/lowest.	4	• overall, the UK's wind power production has increased between 2013 to 2023 (1 mark) • in 2013 the wind power production was approximately 29,000 GWh but by 2023 it had increased to 82,000 GWh (1 mark) this is an increase of 53,000 GWh (1 mark) • between 2015 and 2016 the wind power decreased from approximately 41,000 GWh to approximately 37,000 GWh (1 mark) a decrease of 4,000 GWh (1 mark) • between 2017 and 2020 wind power production increased from 50,000 GWh to approximately 76,000 GWh (1 mark) Or any other valid point.
	(b)		Award 1 mark per valid point. Award 2 marks for a developed point. Award no marks for description. Answers must refer to effects not causes.	6	• increasing global temperatures are causing ice caps to melt (1 mark) • melting ice caps/thermal expansion causes sea levels to rise (1 mark) • sea levels have risen putting low-lying islands at risk of flooding (1 mark) • conditions like sea levels rising have forced whole communities to relocate (climate refugees) (1 mark) • melting sea ice means polar bears' struggle to hunt seals endangering the survival of the species (1 mark) • In some areas higher temperatures and reduced rainfall has led to crop failure (1 mark) which may lead to more widespread hunger worldwide and even famines (1 mark) • heatwaves have become more frequent in many regions of the world which has resulted in more hospitalisations and deaths (1 mark) • tropical storms are likely to become more intense because of average sea temperatures increasing (1 mark) this can lead to greater destruction of property and infrastructure when they make landfall (1 mark) • more prolonged periods of dry weather have made forest fires more likely (1 mark) • glaciers are retreating which is reducing water availability in some regions of the world (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• average ocean temperatures have increased which has led to coral bleaching (1 mark) this could decrease the number of tourists in areas such as the Great Barrier Reef negatively impacting the local economy (1 mark) • milder winter temperatures could lead to less snow in some places adversely affecting winter sports (1 mark) this could lead to loss of jobs in skiing areas such as the Scottish Highlands or French Alps (1 mark) • mosquitoes are thriving in the warmer and wetter conditions which is exposing millions of additional people to malaria (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
13.	(a)		Award 1 mark for each valid point. Award a maximum 1 mark for a trend. Award 0 marks for highest/lowest.	4	• overall, between 2012 and 2022 the number of square kilometres deforested has increased (1 mark) • in 2012 it was approximately 4,500 square kilometres which then rose in 2013 to almost 6,000 square kilometres (1 mark) this is an increase of approximately 1,500 square kilometres (1 mark) • in 2014 it rose from 5,000 square kilometres to just under 8,000 square kilometres by 2016 (1 mark) • in 2017 it was 7,000 square kilometres, and this increased each year until 2021 when it reached 13,000 square kilometres (1 mark) • between 2021 and 2022 there was a small decrease from 13,000 square kilometres to approximately 11,500 square kilometres (1 mark) Or any other valid point.
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point. For full marks both people and environment should be mentioned, otherwise mark out of 5. Accept positive and negative points.	6	People: • there is a loss of land for indigenous people which disrupts their traditional way of life (1 mark) • the destruction of land results in a reduction of available land for indigenous people to farm which could threaten food supplies (1 mark) • illegal loggers may become hostile and aggressive towards indigenous people and may attack or kill them (1 mark) • indigenous people become exposed to diseases that they lack immunity to leading to illness or even death (1 mark) • people who make their living from the resources of the rainforest could suffer a loss of income (1 mark) • when rainforests are burnt on a large scale it can result in thick toxic smoke which may cause respiratory problems (1 mark) • industries such as mining create jobs (1 mark) • new roads such as the Trans-Amazonian Highway improve access (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					Environment: • there will be a lack of trees to bind the soil leading to high rates of soil erosion (1 mark) • soil may be washed into nearby rivers which can lead to flooding (1 mark) • rainforest habitats are destroyed which can endanger animal or plant species/lead to extinction (1 mark) • some trees/plants have vital ingredients for life-saving medicines, so these are then lost (1 mark) • less trees will reduce the rainforest's ability to absorb carbon dioxide which will exacerbate climate change (1 mark) • burning of the rainforest can release carbon stored in the trees which contributes to climate change (1 mark) • deforestation disrupts the water and nutrient cycles of the rainforest and can lead to land degradation (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
14.	(a)		Award 1 mark for each valid point. Award 1 mark for a trend. Award 0 marks for highest/lowest.	4	• overall from 2013 to 2024 the number of tropical storms increased (1 mark) • in 2013 there were 14 tropical storms and this decreased to 8 in 2014 (1 mark) • between 2014 and 2017 the number of tropical storms increased by approximately 9 (1 mark) • there were 15 tropical storms in 2018 and then there were double this amount in 2020 (1 mark) • there were 30 tropical storms in 2020, but this fell to 21 tropical storms in 2021 (1 mark) which is a decrease of 9 tropical storms (1 mark) • there were 20 tropical storms in 2023 and this decreased to approximately 18 in 2024 (1 mark) Or any other valid point.
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point. If no reference to a specific tropical storm, mark out of 5. For full marks both people and the landscape must be mentioned, otherwise mark out of 5.	6	For Hurricane Otis (Mexico, 2023) People: • the strong winds and storm surge resulted in at least 52 deaths and at least 32 missing (1 mark) • landlines and mobile phone coverage was disrupted for more than 24 hours, due to damaged infrastructure (1 mark) • more than 30% of the homes in the state of Guerrero lost power because the power lines were down (1 mark) • the storm struck the tourist resort of Acapulco leading to a traumatic experience for tourists who had to shelter from the storm (1 mark) • in the aftermath of the storm there was no drinking water available in Acapulco, due to contaminated water supplies, which put pressure on emergency aid of water (1 mark) • the estimated cost of damages was over \$10 billion which reduced Mexico's GDP/hindered development in Mexico (1 mark) • as the tropical storm approached landfall there was disruption to people's everyday lives with schools closed (1 mark) • all flights in and out of Acapulco were cancelled disrupting people's travel plans (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• about 80% of all hotels in Acapulco sustained damage so whilst these remained closed, they lost income (1 mark) • many hospitals were out of operation negatively affecting the medical treatment available for people (1 mark) • widespread looting leading to the President deploying the army and police to protect businesses (1 mark) • there was a second wave of deaths as flooding led to an increase in water-borne diseases (1 mark) Landscape: • the storm surge and intense rainfall caused extensive flooding and mudslides in coastal areas (1 mark) • debris, fallen trees and mudslides blocked main roads leading to disruption to transport (1 mark) • winds of up to 165mph/265kmh caused severe damage and destruction to over 100,000 homes (1 mark) • a large amount of Guerrero farmland was destroyed by flood water leading to a reduction in crop yield (1 mark) • the runway of an air force base near to Acapulco was blocked by debris making rescue operations difficult (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
15.	(a)		Award 1 mark for each valid point. Award 1 mark for a list of countries with the same data. Award 1 mark for a trend.	4	- countries such as Chile and Madagascar have an agreement in place (1 mark) - Mali and Brazil are countries with an agreement started (1 mark) - countries such as India and Australia have agreements being discussed (1 mark) - Chad and Somalia have agreements on hold (1 mark) - Russia and the USA have no agreement (1 mark) Or any other valid point.
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point.	6	- the Fairtrade minimum price means farmers get a regular income from products so they are not affected by fluctuating prices (1 mark) - money goes directly to the farmer as other parts of the supply chain are removed increasing the farmers income (1 mark) - accidents and injuries are prevented due to safer working conditions (1 mark) - the Fairtrade premium supports better farming and investment to improve crop yields to reduce hunger (1 mark) and increase surplus for sale (1 mark) - workers employed on Fairtrade plantations can access better housing, schools and medical care due to increased income (1 mark) which improves their standard of living (1 mark) - the Fairtrade Standards train farmers in ways to keep soils healthy to reduce disease and pests (1 mark) and therefore reduce the need for the use of harmful pesticides (1 mark) - farmers are empowered to negotiate better prices and so are less vulnerable to poverty (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
16.	(a)		Award 1 mark for each valid point. Award 1 mark for a list of countries with the same data. Award 1 mark for a trend. Award 0 marks for countries with no data.	4	• some countries such as Madagascar and Iceland had less than 1 million aeroplane passengers in 2020 (1 mark) • many countries such as Algeria, Bolivia and New Zealand had between 1 and 9.9 million aeroplane passengers (1 mark) • countries including Canada, Spain and France had between 10 and 30 million air passengers (1 mark) • countries which had over 30 million aeroplane passengers included Brazil and China (1 mark) • no country in Africa has more than 10 million aeroplane passengers (1 mark) Or any other valid point.
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point. If no area(s) named award a maximum of 5 marks. Accept positive and negative points. For full marks both people and the environment must be mentioned, otherwise award a maximum of 5.	6	If Barcelona is chosen: People: • mass tourism can provide more opportunities for jobs for locals increasing incomes (1 mark) However, these jobs can be seasonal and poorly paid (1 mark) • tourists spend money on food, trips, etc bringing money into the local economy (1 mark) However, locals do not always benefit as many companies are multinational and much of the money goes out of the country (1 mark) • local traditions and customs may be kept alive because tourists enjoy experiencing traditional activities (1 mark) (for example, the La Mercè festival) • new roads may need to be built to cope with visitor numbers which may speed up journeys for locals (1 mark) • increased tourist traffic, however, may lead to overcrowding and traffic jams (1 mark) • anti-social behaviour due to over consumption of alcohol can be a problem in resort areas causing noise and disturbance to locals (1 mark) • lack of cultural appreciation particularly around dress codes and religious observance can offend locals (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					Landscape: - the natural environment can be damaged by too many visitors for example footpath erosion or too much litter (1 mark) - building of new hotels and facilities can lead to the destruction of the natural landscape and animal habitats (1 mark) - water supplies can be over stretched due to the number of tourists causing water shortages (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
17.	(a)		Award 1 mark for each valid point. Award 1 mark for a trend. Award 0 marks for highest/lowest.	4	• overall, the number of cases of cholera has increased (1 mark) • from 2010 to 2023 the number of cases of cholera has increased from 320,000 to 530,000 (1 mark) • from 2016-2018 the number of cases increased from approximately 130,000 to 500,000 (1 mark) • in 2019 the number of cases was approximately 920,000 and this decreased to approximately 220,000 in 2021 (1 mark) a decrease of 700,000 cases (1 mark) Or any other valid point.
	(b)		Award 1 mark per valid point. Award 2 marks for a developed point. For full marks candidates should refer to impacts on both people and the wider community/country, otherwise award a maximum of 5. Award a maximum of 2 marks for discussing symptoms.	6	If cholera chosen: • cholera can cause extreme sickness, vomiting, muscle cramps and diarrhoea which can cause the victim to become dehydrated very quickly (1 mark) this can lead to shock, a severe drop in blood pressure and death if not treated quickly (1 mark) • where lots of people are living close together in insanitary conditions the bacteria spreads quickly from person to person (1 mark) • children are at particular risk and can die from cholera within 24 to 48 hours as they are less able to fight the disease (1 mark) • if left untreated cholera can be fatal reducing the average life expectancy of a country (1 mark) • the impact on communities is therefore very high as workers are off sick and productivity is consequently very low (1 mark) This affects the whole economy of the country as resources are used up fighting the cholera outbreak instead of being invested in other areas such as education (1 mark) • people who recover from cholera are often weak and have lowered resistance to fight off other diseases so their long-term health suffers (1 mark) Or any other valid point.

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					If malaria chosen: • symptoms can include fever, shaking, chills, sickness, vomiting and muscle pains (1 mark) this can lead to coma and, if untreated, death (1 mark) • children under 5 are often worst affected because they have built up less resistance to diseases than adults (1 mark) • malaria can recur and so people may often experience several bouts of illness which has a very serious economic effect on their families as if they cannot work they may lose income (1 mark) As a result, families may not be able to afford to send their children to school so they lose out on education (1 mark) • family's income may be so low that they cannot afford sufficient food so malnutrition and hunger can also be a problem (1 mark) • crops may be left unharvested in the fields because farm workers are too ill to gather them in (1 mark) • the whole economy of a malaria affected country can suffer because of low productivity as much of the workforce is frequently off sick (1 mark) • few tourists want to visit the country because of the threat from malaria further impacting the country economically (1 mark) Or any other valid point. If HIV/AIDS chosen: • symptoms can include fever, rash, weight-loss, fatigue, flu-like symptoms and a weakened immune system (1 mark) this can lead to long-term health problems and if untreated early death (1 mark) • AIDS is a debilitating disease which means that eventually those infected will not be able to work (1 mark) this lowers productivity and hampers development of a country (1 mark) and in turn leads to fewer jobs and less wealth in a country (1 mark) • due to the cost of treating the disease with antiretroviral drugs health budgets are strained (1 mark) • life expectancy decreases because of the increased number of deaths (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					• in areas where AIDS is endemic children may be left without parents and brought up by grandparents (1 mark) meaning entire middle-aged populations may be missing from societies (1 mark) • those affected will be mainly in the economically active group so the dependency ratio will increase (1 mark) and there will be less people to support the young and elderly (1 mark) • with more adults ill and unable to work then the economically active population reduces (1 mark) resulting in a shortage of labour (1 mark) • less food will be produced as less people are able to work the land (1 mark) • there may be a loss of tourist revenue if there are known to be specific problems with disease in the area (1 mark) • the young often become carers, therefore missing out on education (1 mark) • there will also be a large number of orphans and broken families (1 mark) • relatives of sufferers may face social rejection by their communities (1 mark) • lack of staff in schools means that many people do not receive enough education about AIDS (1 mark)

[END OF MARKING INSTRUCTIONS]