



National
Qualifications
2025

2025 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)		<p>Award 1 mark for each valid point.</p> <p>Each point should be identified with a correct grid reference or named example from the map.</p> <p>The same feature cannot be awarded multiple marks.</p>	4	<ul style="list-style-type: none"> • there are several headlands on the map like Porthcawl Point (1 mark) • there are caves at 873739 (1 mark) • there are several bays like Trecco Bay (1 mark) • there are cliffs (Black Rocks) at 867742 (1 mark) • there is a sandy beach at 8276 (1 mark) • there is a wave-cut platform at 807768 (1 mark) • there are dunes at 869772. (1 mark) <p>Or any other valid point.</p>
	(b)		<p>Award 1 mark for a valid point.</p> <p>Well-annotated diagrams could get full marks.</p> <p>Award a maximum of 2 marks for reference to processes.</p> <p>Award 1 mark for basic diagrams showing progression.</p> <p>Award 0 marks for reference to a salt marsh/sand bar.</p>	4	<ul style="list-style-type: none"> • sand spit form where the coastline changes direction (1 mark) • longshore drift (1 mark) transports material such as sand and deposits it in a sheltered area (1 mark) • deposited material builds up over time until it is above sea level. (1 mark) This deposition continues until the beach extends into the sea to form a spit (1 mark) • sand spits can also develop a hooked or curved end due to a change in prevailing wind/wave direction. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
2.	(a)		<p>Award 1 mark for a valid point.</p> <p>Each point should be identified with a correct grid reference or named example from the map.</p> <p>The same feature cannot be awarded multiple marks.</p> <p>For full marks both the river and its valley must be mentioned, if not mark out of 3.</p>	4	<ul style="list-style-type: none"> the river is flowing in a mainly south westerly direction (1 mark) a tributary, the River Eweny, joins the river (1 mark) it mainly flows through a wide flat valley especially in square 8977 (1 mark) there is a confluence at 879769 (1 mark) there is an island at 877768 where the two rivers join (1 mark) there are several meanders on the river for example 892777 (1 mark) the river becomes tidal at 876766 (1 mark) the river enters the sea/mouth at 8575 (1 mark) there is a floodplain in grid square 8978. (1 mark) <p>Or any other valid point.</p>
	(b)		<p>Award 1 mark for a valid point.</p> <p>Well-annotated diagrams can obtain full marks.</p> <p>Award a maximum of 2 marks for reference to processes.</p> <p>Award a maximum 1 mark for a list of processes.</p> <p>Award 1 mark for basic diagrams showing progression.</p> <p>Award 0 marks for reference to a gorge.</p>	4	<ul style="list-style-type: none"> 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) 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) <p>Or any other valid point.</p>

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	<ul style="list-style-type: none"> • A — 7.75km • B — 2.25km • C — 5km
4.			<p>Award 1 mark for a valid point.</p> <p>Award a maximum of 1 mark for a correct grid reference or named map evidence linked to a valid explanation (accept 4 figure grid references).</p> <p>Award 1 mark for a list of attractions.</p>	6	<ul style="list-style-type: none"> • there is a variety of accommodation like a hotel at 867747 (1 mark) which could offer accommodation for visitors who wish to stay overnight (1 mark) • there is also a caravan and camping site at 817799 for visitors who like the outdoors (1 mark) • there are a number of beaches which tourists could go and sunbathe such as at Sandy Bay (8276) (1 mark) • there would be nice sea views for visitors to enjoy from Black Rocks (1 mark) and a variety of scenery and wildlife to be seen from the Wales Coast Path (855767) (1 mark) • there are areas of forestry where people can walk their dogs (for example 8777) (1 mark) • there is a castle for visitors who enjoy history (1 mark) • there are several nature reserves (for example 863768) where visitors can enjoy the local wildlife (1 mark) • there are roads for access like the A4229/A4106 into Porthcawl (1 mark) • parking is available (at 8873) for visitors who want to leave their cars to access the walking route. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
5.			<p>Award 1 mark per valid point.</p> <p>Award 2 marks for a developed point.</p> <p>No marks for description of the weather it brings.</p> <p>Accept both negative and positive effects.</p>	4	<ul style="list-style-type: none"> freezing temperatures can cause pipes to burst causing water damage to homes (1 mark) more accidents due to the icy conditions result in people being admitted to hospital with broken limbs (1 mark). This puts an extra strain on the health service (1 mark) additional supplies of gas/electricity are needed as people turn up their heating to keep warm (1 mark) putting pressure on the National Grid (1 mark) increased use of gas/electricity means people must find additional money to pay for higher bills (1 mark) travel is disrupted affecting businesses as workers cannot reach their employment (1 mark) this air mass can bring snowy conditions which allows people to take part in outdoor activities like sledging and skiing (1 mark) possible snow leads to rising sales of winter goods such as hats, gloves and sledges (1 mark) and ski resort bookings will increase, bringing more money to the local economy. (1 mark) <p>Or any other valid point.</p>
6.			<p>Award 1 mark per valid point.</p> <p>Award 2 marks for a developed point.</p> <p>No marks for description of the weather.</p> <p>Answers should refer to the synoptic chart.</p> <p>Answers should give reasons for the differences.</p>	4	<ul style="list-style-type: none"> there is a warm front over Carlisle which will bring more rain as shown on the station circle (1 mark) the warm front over Carlisle explains the greater amount of cloud cover as cloud builds up at fronts (1 mark) the windspeed is 15 knots greater in Carlisle as the isobars are closer together (1 mark) Swansea is in the warm sector which means it will be drier (1 mark) and also explains the warmer temperature of 9 degrees (1 mark) as Swansea is between fronts there will be 4 oktas less cloud cover. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
7.			<p>Award 1 mark for a valid point.</p> <p>Award 2 marks for a developed point.</p> <p>No marks for description of conflicts.</p> <p>Award a maximum of 4 marks if no reference to specific area.</p> <p>Answers depend on case study chosen.</p>	5	<p>If Yorkshire Dales chosen:</p> <ul style="list-style-type: none"> • 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) <p>If Brecon Beacons chosen:</p> <ul style="list-style-type: none"> • 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 lakes 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) • fines have been introduced to discourage people dropping litter (1 mark) • visitors are encouraged to follow the Countryside Code/Waterways Code protecting the environment. (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					<p>If Dorset Coast chosen:</p> <ul style="list-style-type: none"> • 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) • fines have been introduced to discourage people dropping litter (1 mark) • rangers are employed to educate visitors on responsible tourism (1 mark) • 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 which allows tourists and locals to avoid the area. (1 mark) <p>If Loch Lomond chosen:</p> <ul style="list-style-type: none"> • 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 and damage to the environment (1 mark) • farmers can 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) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
8.	(a)		Award 1 mark for a correct point.	3	9083 — new housing 9380 — rural/urban fringe 7786 — old industry
	(b)		Award 1 mark per valid point. No marks for a grid reference. Award a maximum of 4 marks if no reference to the Ordnance Survey map. Both areas must be referred to for full marks otherwise mark out of 4. Award a maximum of 1 mark for a list of features in Area A or Area B.	5	<ul style="list-style-type: none"> Area A is in the suburbs as it is on the outskirts of Bridgend (1 mark) Area A has open space resulting in larger houses and gardens (1 mark) in Area A the streets are curved with many cul-de-sacs creating a safer environment for children (1 mark) in Area A there are mostly minor roads going through so the area is quiet (1 mark) Area B is the CBD as many of the main roads meet there (1 mark) Area B has public transport such as a bus station allowing workers and tourists access to the shops and offices (1 mark) Area B has many places of worship as this is the oldest part of Bridgend. (1 mark) <p>Or any other valid point.</p>
	(c)		Award 1 mark per valid point. Award 2 marks for a developed point. Award a maximum of 4 marks if no reference to the Ordnance Survey map. Award 1 mark for a list of features. No marks for a grid reference. No marks for disadvantages. No marks for description.	5	<ul style="list-style-type: none"> the site is on the outskirts of the built-up area so the land should be cheaper (1 mark) the land is flat making building easier (1 mark) there is some open space around the area allowing for future expansion (1 mark) there is good accessibility via the A473 and A48 for transport of materials and/or workers (1 mark) the M4 allows products to be transported further afield (1 mark) the nearby town of Bridgend can provide a labour force (1 mark) and can also serve as a market for its products (1 mark) there is a pleasant environment for the workers with the River Ewenny and footpaths close by (1 mark) there is an on-site wind turbine providing renewable energy to the industrial estate. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Specific marking instructions for this question
9.			<p>Award 1 mark for each valid point.</p> <p>Award 2 marks for a developed point.</p> <p>Answer should be explanation.</p> <p>No marks for purely descriptive points.</p> <p>For full marks, answers should refer to both birth rates and death rates, otherwise mark out of 5.</p>	6	<ul style="list-style-type: none"> • birth rates are higher in Mozambique where there is a lack of gender equality in education (1 mark) and there is a lack of access to contraception (1 mark) • in Mozambique where families may have lost children in infancy, they may be likely to have more children (1 mark) • in Mozambique birth rates are higher as some children are required to work on the family farm (1 mark) and since there is limited access to pensions parents may need children to look after them in old age (1 mark) • in Mozambique there is a higher death rate due to endemic diseases like Malaria, famine, lack of clean water and sanitation (1 mark) • in Italy birth rates are lower as many women have careers and choose to have babies later in life (1 mark) • throughout the age groups there are fewer deaths as they have easier access to health care (1 mark) like vaccinations and latest medical technology (1 mark) • life expectancy is higher in Italy as they have access to geriatric health care (1 mark). • in Italy people tend to favour lifestyle over larger families (1 mark) and children are expensive to raise so birth rates are lower. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Specific marking instructions for this question
10.			<p>Award 1 mark for a valid point.</p> <p>Award 2 marks for a developed point.</p> <p>Award a maximum of 1 mark for a list of improved facilities (for example better housing, better toilets, better water supplies).</p> <p>Answer will depend on area of study chosen.</p> <p>If no specific city/area is referred to, mark out of 4.</p>	5	<p>If Kibera, Nairobi chosen:</p> <ul style="list-style-type: none"> • new roads have been constructed which improved access within Kibera (1 mark) and allows trucks to collect rubbish improving the health of the citizens (1 mark) • sewers have been installed improving the cleanliness of the area (1 mark) • small businesses have been set up along the cleared roads creating jobs (1 mark) • storm drains are being installed to control flooding (1 mark) • communal toilet blocks have been built to stop sewage contaminating the streets (1 mark) • clean water is now available from communal taps reducing the spread of water borne diseases (1 mark) so locals no longer need to spend time collecting water from the Nairobi Dam (1 mark) • security has been improved by having more police patrols which have helped to reduce drugs related crime (1 mark) • under government improvement schemes informal housing areas are being cleared reducing overcrowding (1 mark) and people are being re-housed nearby in newly built apartments (1 mark). This is affordable accommodation, and the new estates also include schools, markets and other facilities improving living standards (1 mark) • plastic bottles filled with a bleach and water solution are put into the roof which refracts the sunlight giving the houses a source of light. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Specific marking instructions for this question
11.			<p>Award 1 mark for each valid point.</p> <p>Award 2 marks for a developed point.</p> <p>Award a maximum of 5 marks if both advantages and disadvantages not mentioned.</p> <p>Accept different reasons for higher yields.</p>	6	<ul style="list-style-type: none"> the use of new technology like drones and GPS means that farmers can work more efficiently (1 mark) the use of irrigation channels can allow two to three harvests a year instead of one, this increases food supply (1 mark) the use of fertilisers improves crop growth increasing crop yields (1 mark) which leads to increased profit for some farmers (1 mark) which can increase their standard of living (1 mark) the increased use of machinery has created new industries and jobs, eg mechanics to fix tractors (1 mark) increased yields allow a surplus to be produced encouraging trade to take place (1 mark) the increased demand for biofuels can result in higher crop prices improving the farmers' income (1 mark) and can provide a cheaper source of fuel for the farmer (1 mark) GM seeds can be drought-resistant ensuring reliable harvests (1 mark) mechanisation can result in unemployment as machines do the work previously done by humans (1 mark). This can lead to rural depopulation in some areas as people move to the city looking for work (1 mark) machinery is expensive and not all farmers can afford it (1 mark) so find it difficult to compete with those who can (1 mark) increased use of pesticides is damaging the environment (1 mark). Overuse of the land is reducing the soil health over time. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Specific marking instructions for this question
12.	(a)		<p>Award 1 mark for each valid point.</p> <p>Award 1 mark for a trend.</p> <p>No marks for highest or lowest.</p>	4	<ul style="list-style-type: none"> • overall, the UK's CO₂ emissions per capita decreased between 2000 to 2022 (1 mark) • between 2000 to 2009 the UK's CO₂ emissions decreased from approximately 9.7 tonnes per capita to approximately 8 tonnes per capita (1 mark) • there was a slight increase from 2009 to 2010 as it rose from 8 tonnes per capita to around 8.2 tonnes per capita (1 mark) • from 2012 the UK's CO₂ emissions decreased from approximately 7.6 tonnes per capita to approximately 4.9 tonnes per capita by 2020 (1 mark) which is a decrease of around 2.7 tonnes per capita over the 8 years. (1 mark) <p>Or any other valid point.</p>
	(b)		<p>Award 1 mark for each valid point.</p> <p>Award 2 marks for a developed point.</p> <p>Award no marks for description.</p> <p>Award a maximum of 5 marks for either Physical or Human causes.</p>	6	<p>Physical causes may include:</p> <ul style="list-style-type: none"> • fluctuations in solar activity over time can increase or decrease global temperatures (1 mark) • volcanic eruptions can lower global temperatures as large quantities of volcanic dust in the atmosphere block the sun's rays (1 mark) • variations in the tilt and/or orbit of the Earth around the Sun can affect global temperatures (1 mark) More tilt means warmer summers and colder winters, less tilt has the opposite effect (1 mark) • changes in ocean currents due to global warming can affect temperatures in different parts of the world (1 mark) • melting permafrost from Arctic areas can release large quantities of methane increasing global temperatures. (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					<p>Human causes may include:</p> <ul style="list-style-type: none"> • increased ownership of petrol/diesel powered transport has increased the amount of carbon emissions globally (1 mark) • the burning of fossil fuels such as coal to generate energy has increased levels of carbon dioxide in the atmosphere (1 mark) • worldwide deforestation, often involving rainforest burning, releases carbon dioxide (1 mark) and reduces the number of trees available to absorb/store carbon (1 mark) • cattle farming contributes to increased methane emissions (1 mark) • rice farming/padi fields to feed rapidly growing populations also produces methane emissions (1 mark) • nitrogen fertilisers used for farming have increased the amount of nitrous oxide emissions worldwide (1 mark) • increasing amounts of waste going to landfill produces harmful gases such as methane when it decays which contributes to global warming (1 mark) • incorrect disposal of fridges increases CFC emissions. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
13.	(a)		<p>Award 1 mark for each valid point.</p> <p>Award 1 mark for a trend.</p> <p>Award 0 marks for differences/comparison.</p> <p>Award 0 marks for no change.</p> <p>For full marks both places must be described otherwise mark out of 3.</p> <p>Award 0 marks for highest/lowest.</p>	4	<ul style="list-style-type: none"> • overall forest loss has decreased in Republic of the Congo (1 mark) • forest loss has decreased in Republic of the Congo from 60 thousand hectares to 20 thousand hectares between 2018 and 2023 (1 mark) • forest loss in Peru decreased from 2018 to 2023 by 50 thousand hectares (1 mark) • forest loss in Republic of the Congo increased from 60 thousand hectares to approximately 70 thousand hectares between 2018 and 2019 (1 mark) • in 2020 forest loss in Peru was 300 thousand hectares and this decreased to approximately 220 thousand hectares by 2021. (1 mark) <p>Or any other valid point.</p>
	(b)		<p>Award 1 mark for a valid point.</p> <p>Award 2 marks for a developed point.</p> <p>No marks for a description of any one strategy eg Educating people or National Parks.</p>	6	<ul style="list-style-type: none"> • national parks (such as Denali National Park, Alaska) have been created to protect areas of the tundra (1 mark) • wildlife organisations (such as the WWF) raise awareness about the tundra and the importance of protecting it (1 mark) • in Canada and Russia, many tundra areas are protected through a national Biodiversity Action Plan (BAP) designed to protect and restore threatened species and habitats (1 mark) • the Arctic Council has established a working group to study and prevent the spread of invasive species in the tundra to protect native species (1 mark) • conservation groups educate on the threats to species and ways to help conserve them (1 mark) • strategies such as slowing ships down in certain areas to reduce noise causing less stress to species such as the narwhal (1 mark) • limiting the numbers of whales that can be caught helps to protect whale populations (1 mark) • in Alaska the Trans-Alaska Pipeline System is surveyed several times a day to spot leaks and cracks (1 mark) • refrigerated supports are also used on the Trans-Alaska pipeline to stabilise the temperature of the permafrost (1 mark) • roads and other infrastructure can be built on top of insulating ice and gravel pads to prevent collapse. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
14.	(a)		<p>Award 1 mark for each valid point.</p> <p>Award 1 mark for a trend.</p> <p>For full marks, both Category 1 or 2 and Category 3, 4 or 5 should be mentioned.</p> <p>No marks for highest/lowest.</p>	4	<ul style="list-style-type: none"> the number of category 1 or 2 hurricanes increased between 2011 and 2012 (1 mark) However, the number of category 3, 4 or 5 hurricanes decreased by half (1 mark) between 2015 and 2018 the number of category 1 or 2 hurricanes increased from 2 to 6 (1 mark) between 2015 and 2017 the number of category 3, 4 or 5 hurricanes increased from 2 to 6 (1 mark) They then decreased to 2 in 2018 (1 mark) the overall total number of hurricanes fell between 2020 and 2021 from 14 to 7. (1 mark) <p>Or any other valid point.</p>
	(b)		<p>Award 1 mark for each valid point.</p> <p>Award 2 marks for a developed point.</p> <p>No marks for description.</p> <p>Mark out of 5 if no reference to specific area.</p> <p>Marks may be awarded for reference to warnings given/evacuations taking place prior to volcanic eruptions.</p>	6	<p>Answers will vary depending on the case study chosen.</p> <ul style="list-style-type: none"> scientists can study seismic activity to help predict eruptions allowing an evacuation plan to be put in place (1 mark) if people are warned, they can evacuate to save lives (1 mark) In the case of Cumbre Vieja, land and sea exclusion zones were also enforced to keep people away from the area (1 mark) emergency services on La Palma attempted to divert some of the lava hoping to steer it away from properties (1 mark) thermal imaging techniques are used to detect heat around a volcano so that experts can determine which areas are most at risk (1 mark) tilt meters which record changes in the shape of a volcano over time are used to calculate the threat of an imminent eruption (1 mark) local people have emergency supplies such as bottled water and tinned food stockpiled to survive in the event of an eruption (1 mark) in the event of an eruption aid such as food, medicine and shelter could be sent to the area to help those affected (1 mark) authorities in La Palma closed the island's airport to prevent damage to aeroplane engines by ash and dust from the erupting volcano. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Specific marking instructions for this question
15.	(a)		Award 1 mark for each valid point. Award 1 mark for a trend.	4	<ul style="list-style-type: none"> the United States and India are the only two nations to have a trade deficit (1 mark) the United States changed from approximately -4.3% in 2019 to approximately -5.2% in 2021 (1 mark) the European Union trade balance changed by approximately 0.8% between 2019 and 2021 (1 mark) India has changed by approximately 0.1% (1 mark) from approximately -0.7% to -0.6% between 2019 and 2021 (1 mark) China's trade balance changed by around 1% (1 mark) from approximately 3.5% in 2019 to approximately 4.5% in 2021. (1 mark) <p>Or any other valid point.</p>
	(b)		Award 1 mark for each valid point. Award 2 marks for a developed point. For full marks, both people and the environment must be mentioned. If not, award a maximum of 5 marks.	6	<ul style="list-style-type: none"> in regions of the world, many countries trade by producing and exporting low value goods resulting in a low standard of living (1 mark) some countries export mainly primary products such as coffee for comparatively low prices but import mainly processed goods such as vehicles for much higher prices (1 mark) leading to a trade deficit for them (1 mark) which results in higher debt levels and increased borrowing to fund health and education (1 mark) the shipping industry moves around 90% of all globally traded goods but container ships burn fossil fuels contributing to climate change (1 mark) in developing countries such as Bangladesh the garment industry provides employment improving living standards (1 mark) in Kenya coffee growers receive low wages and so struggle to provide for themselves or their families (1 mark) in Brazil deforestation creates space for agricultural land resulting in the loss of large areas of rainforest (1 mark) This is driven by demand from world markets for food resulting in the loss of animal habitats. (1 mark) <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Specific marking instructions for this question
16.	(a)		<p>Award 1 mark for each valid point.</p> <p>Award 1 mark for a general trend.</p> <p>Award 1 mark for a list of countries with the same international tourist numbers.</p> <p>Award 0 marks for no data.</p>	4	<ul style="list-style-type: none"> • many countries in Africa have the lowest number of tourist arrivals (1 mark) • Mali and Venezuela all have between 0-1 million tourist arrivals (1 mark) • Peru, Botswana and Australia have between 2-10 million tourist arrivals (1 mark) • Argentina, South Africa and Russia have between 11-199 million tourist arrivals (1 mark) • The United States, China, and Canada all have between 200-300 million tourist arrivals. (1 mark) <p>Or any other valid point.</p>
	(b)		<p>Award 1 mark for each valid point.</p> <p>Award 2 marks for a developed point.</p> <p>Candidates should refer to named examples.</p> <p>If no reference to named area(s), a maximum of 5 marks should be awarded.</p>	6	<ul style="list-style-type: none"> • the eco-tourist industry aims to use social and environmental practices which benefit communities by protecting their environment and their heritage (1 mark) • local guides educate visitors on environmental issues in the area to promote conservation (1 mark) • limited numbers of people are allowed access to eco-tourist areas, for example in Peru, daily numbers are restricted on the Inca Trail to protect it (1 mark) • eco-tourists must follow local customs and respect local cultures, for example removing shoes before entering temples in Cambodia to avoid insulting locals (1 mark) • eco-tourists are encouraged to follow the code 'take nothing but photographs, leave nothing but footprints' to minimise their impact (1 mark) • solar power can be used and water supply pumped from rivers using a silent solar powered pump to avoid disturbing the surrounding natural habitats (1 mark) • to minimise water consumption grey water is treated and then re-used in the garden of eco lodges (1 mark) • campers use dry toilets to reduce water consumption and pollution (1 mark) • all kitchen and garden waste is used as compost to grow as much organic food as possible to prevent soil and water contamination (1 mark) • Whenever possible eco-tourist hotels avoid purchasing packaged goods and shop locally to reduce their carbon footprint (1 mark) • eco-resorts recycle and use biodegradable products and try to keep waste products to a minimum to reduce the amount going to landfill. (1 mark) <p>Or any other valid point.</p>

Question		General marking instructions for this type of question	Max mark	Specific marking instructions for this question
17.	(a)	<p>Award 1 mark for each valid point.</p> <p>For full marks, both graphs must be referred to otherwise mark out of 3.</p> <p>Award a maximum of 3 marks for 1 graph.</p> <p>Award 1 mark for a general trend.</p> <p>Award 0 marks for highest/lowest.</p>	4	<ul style="list-style-type: none"> • overall, the number of malaria cases per 1000 has decreased between 2010 and 2022 (1 mark) • the number of malaria cases decreased from 72 per 1000 in 2010 to 62 per 1000 in 2012 (1 mark) • the number of malaria cases increased from 57 per 1000 in 2018 to 59 per 1000 in 2020 (1 mark) • the number of malaria deaths per 100,000 has decreased from 17 in 2010 to 11 in 2014 (1 mark) • between 2016 and 2020 the number of malaria deaths increased from 10 to 16 per 100,000 (1 mark) • the number of malaria deaths per 100,000 has decreased from 16 in 2020 to 14 in 2022. (1 mark) <p>Or any other valid point.</p>
	(b)	<p>Award 1 mark per valid point.</p> <p>Award 2 marks for a developed point.</p> <p>No marks for description.</p> <p>Answers must be explanation.</p>	6	<ul style="list-style-type: none"> • health education programmes raise awareness of HIV/AIDS to prevent cases (1 mark) • AIDS awareness campaigns such as UNAIDS World AIDS Day are used to highlight the dangers and causes of AIDS (1 mark) • AIDS can be controlled with HIV treatment known as antiretroviral therapy (ART) (1 mark) It stops the virus from replicating and allows the immune system to strengthen and fight infections (1 mark) • PrEP (pre-exposure prophylaxis) is used to prevent partners of HIV sufferers from contracting the disease (1 mark) • <i>PEP (post-exposure prophylaxis)</i> is emergency medication used to prevent HIV after a possible exposure (1 mark) • large-scale projects such as the Global AIDS Initiative give out free condoms to communities to reduce the spread of the disease (1 mark) • funding has been used for research into developing an AIDS vaccine to reduce the number of cases (1 mark) • drug therapy programmes help to control the disease which prolongs the lives of AIDS sufferers (1 mark) • blood is also screened before use in transfusions in hospitals to prevent transmission (1 mark)

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					<ul style="list-style-type: none"> • availability of AIDS testing is also important so that people know if they have the disease and can take actions to ensure it is not spread (1 mark) • strategies to prevent mother-to-child transmission are used to reduce the chances of virus transmission to newborns. (1 mark) <p>Or any other valid point.</p>

[END OF MARKING INSTRUCTIONS]