

# 2024 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

Q	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	U-shaped Valley: 808713 Corrie: 742835 Pyramidal Peak: 741746
	(b)		Award 1 mark per valid point.  Award a maximum of 1 mark f or list of processes of glacial erosion. A series of diagrams with full explanatory labels may gain full marks.  Award a maximum of 2 marks for reference to processes	4	<ul> <li>snow collects in a hollow of a mountain and the bottom layer compacts/turns to ice (1 mark)</li> <li>the ice begins to move and the hollow is eroded (1 mark)</li> <li>rocks frozen onto the bottom of the ice scrape away at the base of the hollow (abrasion) (1 mark)</li> <li>ice plucking is when the glacier freezes on to loosened rock and pulls it free as the glacier moves (1 mark)</li> <li>frost shattering may cause material to be incorporated into the ice (1 mark)</li> <li>the ice melts leaving an over-deepened hollow with a steep back wall. (1 mark)</li> </ul>
					Or any other valid point.

Question	General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
(c)	Award 1 mark per valid point.  Award 2 marks for a developed point.  No marks for description.  Award 1 mark for a basic list of activities.  Award 0 marks for how the land is not used.	4	<ul> <li>tourists are attracted to glaciated upland areas for the natural scenery which includes ancient forests, vast mountains with glacial features, rivers and lochs (1 mark)</li> <li>some glaciated landscapes are designated as national parks and people are attracted to these areas as they are protected (1 mark)</li> <li>ribbon lochs are large areas of water so provide opportunities for water sports such as water skiing and canoeing (1 mark)</li> <li>mountains with steep slopes and crags provide great opportunities for hill walking and rock climbing (1 mark)</li> <li>in winter snow collects in corries which enables winter sports such as skiing (1 mark)</li> <li>hill sheep farming is common in a glaciated upland area because sheep are hardy and can survive the cold, harsh conditions (1 mark)</li> <li>some pastoral farming is possible on valley floors as the grass is better quality (1 mark)</li> <li>commercial forestry is possible as trees are hardy and can grow on quite steep land and relatively thin soils (2 marks)</li> <li>the high rainfall in upland areas supplies lochs with water that can be used to provide drinking water to settlements (1 mark)</li> <li>steep sided u-shaped valleys provide a natural basin for water storage (1 mark)</li> <li>hydro-electric power (hep) can be generated by damming hanging valleys to create electricity (1 mark)</li> <li>wind turbines can also be located on mountains to take advantage of the windy conditions to generate energy. (1 mark)</li> </ul>

Q	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	Cave: 715793 Limestone pavement: 785724 Potholes: 822744
	(b)		Award 1 mark per valid point.  Award a maximum of 1 mark for list of processes.  A series of diagrams with fully explanatory labels may gain full marks.  Award a maximum of 2 marks for reference to processes.	4	<ul> <li>limestone contains both joints and bedding planes, splitting the rock into well-defined blocks and making it permeable (1 mark)</li> <li>water flows underground through a swallow hole, along bedding planes and down joints until it reaches impermeable rock (1 mark)</li> <li>the slight acidity of the water dissolves the limestone with which it comes into contact (1 mark)</li> <li>a cave/cavern forms where there are many joints and bedding planes close together so that large areas of rock in the same space dissolve quickly (1 mark)</li> <li>the roof of the cave collapses leaving a large space underground which is called a cavern. (1 mark)</li> </ul>
					Or any other valid point.

C	Question		General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
	(c)		Award 1 mark per valid point.  Award 2 marks for a developed point.  Award no marks for description.  Award 1 mark for a basic list of activities.  Award 0 marks for how the land is not used.	4	<ul> <li>tourists visit limestone areas due to the distinctive landscape and scenery eg, limestone pavements, scars and potholes (1 mark)</li> <li>the steepness of limestone scars makes abseiling a popular activity (1 mark)</li> <li>limestone caves attract tourists to admire the dripstone features (1 mark)</li> <li>the variety of slopes means hill walking is popular (1 mark)</li> <li>many other adventure activities such as caving, potholing, rock climbing are also popular in limestone areas due to the variety of scenery (1 mark)</li> <li>some upland limestone landscapes are designated as national parks and people are attracted to these areas as they are protected (1 mark)</li> <li>upland areas are suitable for generating wind power as they are higher up so more exposed to wind (1 mark)</li> <li>hill sheep farming is common in upland limestone areas because sheep are hardy and can survive the harsh weather conditions (1 mark) and poorer quality grazing (1 mark)</li> <li>some dairy farms are located on the flat land in the valleys where the soil is more fertile to provide better quality grazing (1 mark) and the weather is warmer and drier (1 mark)</li> <li>limestone is quarried as it can be used in industry (1 mark)</li> <li>cement works can also locate in limestone areas due to the availability of the raw material lime. (1 mark)</li> </ul> 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 a valid point.  Award 2 marks for a developed point.  Award 0 marks for description.  Answers should be explanation.  Do not accept reverse points.  Award a maximum of 1 mark for a correct grid reference/map evidence.  Award a maximum of 4 marks if only advantages or disadvantages referred to.	5	<ul> <li>Advantages:</li> <li>it is accessible by road B6479 (1 mark) for building and users of outdoor centre (1 mark)</li> <li>there is also a railway station nearby at Horton at 803727(1 mark) making it more accessible (1 mark)</li> <li>there is reasonably flat land making building the outdoor centre easier (1 mark)</li> <li>as it is located in the national park the area is likely to be popular with people of different ages and interests (1 mark)</li> <li>it is ideal for rambling and hiking being close to several walking routes (1 mark)</li> <li>it is accessible to a range of limestone scenery for rock climbing (1 mark)</li> <li>it is close to the village of Horton which has several amenities, eg, shops and cafes (1 mark)</li> <li>the river Ribble can be used for water sports activities. (1 mark)</li> <li>Disadvantages:</li> <li>planning permission might be an issue within the national park (1 mark)</li> <li>the farmer at Cragghill Farm may object to the increase in noise, from the activity centre, disturbing the livestock (1 mark)</li> <li>the possibility of flooding from the river during times of heavy rainfall could close the centre for visitors (1 mark)</li> <li>the quarry (7972) could produce dust pollution which would be unpleasant (1 mark)</li> <li>additional people in the area will negatively affect the environment eg increase noise and litter. (1 mark)</li> </ul>

Question	General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
4.	Award 1 mark for a valid point.  Award 2 marks for a developed point.  Award a maximum of 5 marks if no reference to specific area.  Award a maximum of 1 mark for reference to loss of farmers' income, for example, vet bills, repairs and cost of replacing livestock	6	Answers will vary depending upon the case study and land uses chosen.  Example: Yorkshire Dales  • tourists want to see the beautiful and unusual scenery of the Yorkshire Dales, but quarries spoil the natural beauty of the landscape (1 mark)  • lorries used to remove the stone endanger wildlife and put visitors off returning to the area, this threatens local tourist-related jobs, eg, in local restaurants (2 marks)  • the large lorries needed to remove the quarried stone cause air pollution which spoils the atmosphere for tourists (1 mark)  • lorries cause traffic congestion on narrow country roads which slows traffic and delays drivers (1 mark)  • the peace and quiet for visitors is disturbed by the blasting of rock (1 mark)  • as well as visual and noise pollution, quarries can produce a lot of dust which is unpleasant for nearby residents and visitors. (1 mark)  Example: Cairngorms  • in the Cairngorms, walkers leave gates open and animals escape (1 mark) causing farmers to waste time looking for them (1 mark)  • tourists' dogs can worry sheep if let off their lead (1 mark) costing the farmer money in vet fees (1 mark)  • stone walls are damaged by people climbing over them instead of using gates/stiles (1 mark)  • noisy tourists can disturb sheep especially during breeding season causing them to miscarry (1 mark)  • farmers may restrict walkers access at certain times for example, lambing season preventing tourists going where they want (1 mark)  • farm vehicles can slow up tourist traffic on roads adding extra time to journeys and parked cars on narrow country roads can restrict the movement of large farm vehicles. (2 marks)

Answers should be explanation.  milder with less precipitation (1 mark)  the wind goes from South-East to South-West direction because the wind goe anticlockwise around the low pressure and the isobars show the approximat direction (1 mark)  next the cold front approaches Inverness; the temperature falls (1 mark) as cooler air replaces warmer air on the surface (1 mark)  cold front brings tall heavy cumulonimbus clouds (1 mark) and the increasis cloud cover causes heavy rainfall (1 mark)  as the cold front moves past Inverness and air pressure rises slowly, it will be clearer conditions (1 mark)  as there are less clouds this allows for periods of sunshine (1 mark)  as the isobars are closer together behind the cold front, winds will become stronger (1 mark)  the direction of the isobars changes after the cold front, explaining why the	Ç	Question		General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
Award 0 marks for description.  Answers should be explanation.  • the warm front will bring steady rainfall as fronts bring rain (1 mark)  • as the warm sector of the depression moves over Inverness the temperature milder with less precipitation (1 mark)  • the wind goes from South-East to South-West direction because the wind go anticlockwise around the low pressure and the isobars show the approximat direction (1 mark)  • next the cold front approaches Inverness; the temperature falls (1 mark) accooler air replaces warmer air on the surface (1 mark)  • cold front brings tall heavy cumulonimbus clouds (1 mark) and the increasi cloud cover causes heavy rainfall (1 mark)  • as the cold front moves past Inverness and air pressure rises slowly, it will be clearer conditions (1 mark)  • as the isobars are closer together behind the cold front, winds will become stronger (1 mark)  • the direction of the isobars changes after the cold front, explaining why the	5.			Award <b>1 mark</b> per valid point.		B = Stranraer C = Norwich  • as the depression is approaching Inverness, air pressure is falling steadily (1 mark)  • the temperature will begin to rise as the warm front approaches (1 mark)
Or any other valid point.				·		<ul> <li>the warm front will bring steady rainfall as fronts bring rain (1 mark)</li> <li>as the warm sector of the depression moves over Inverness the temperature is milder with less precipitation (1 mark)</li> <li>the wind goes from South-East to South-West direction because the wind goes anticlockwise around the low pressure and the isobars show the approximate direction (1 mark)</li> <li>next the cold front approaches Inverness; the temperature falls (1 mark) as cooler air replaces warmer air on the surface (1 mark)</li> <li>cold front brings tall heavy cumulonimbus clouds (1 mark) and the increasing cloud cover causes heavy rainfall (1 mark)</li> <li>as the cold front moves past Inverness and air pressure rises slowly, it will bring clearer conditions (1 mark)</li> <li>as there are less clouds this allows for periods of sunshine (1 mark)</li> <li>as the isobars are closer together behind the cold front, winds will become stronger (1 mark)</li> <li>the direction of the isobars changes after the cold front, explaining why the wind will change direction from South-West to West. (1 mark)</li> </ul>

Q	uestion	General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
6.		Award 1 mark for each correct answer.	3	A = 8 km B = 5 km C = 9.75 km
7.		Each answer should be identified with a correct grid reference: 4 correct — 4 marks 3 correct — 3 marks 2 correct — 2 marks 1 correct — 1 mark.	4	3265 = CBD 3962 = new industry 3863 = new housing 3873 = old housing
8.		Award 1 mark for each valid point.  Award 0 marks for grid references.	4	<ul> <li>Croydon airport is no longer there (1 mark)</li> <li>Sanderstead housing area is much bigger (1 mark)</li> <li>there is now a nature reserve (1 mark)</li> <li>there is a new visitor centre where the airport used to be (1 mark)</li> <li>new housing area at Roundshaw (1 mark)</li> <li>there are more hotels in grid square 3163. (1 mark)</li> </ul> Or any other valid point.

Question	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
9.	Award 1 mark per valid point.  Award 2 marks for a developed point.  Award 0 marks for description.  For full marks, answer must refer to a named city. If not mark out of 4.	5	<ul> <li>If Glasgow chosen:</li> <li>old buildings like Candleriggs Fruit Market are no longer needed or suited to their original purpose so are converted into houses, hotels and restaurants (1 mark) to make use of the valuable space in areas such as the Merchant City (1 mark)</li> <li>these converted buildings also afford the opportunity for new land users to move in such as the Scottish Orchestra (1 mark)</li> <li>many areas like Buchanan Street have become pedestrianised to make it safer for shoppers (1 mark) and reduce the number of vehicles in the city centre reducing pollution (1 mark)</li> <li>many small shops have gone out of business and have been replaced with larger chain stores as they can afford the high rents of the city centre (1 mark)</li> <li>indoor shopping malls such as Buchanan Galleries have been built to encourage customers back into the CBD (1 mark). Centres such as St Enoch are not affected by the weather (1 mark)</li> <li>the St Enoch centre has been redeveloped recently, with a new cinema opening, to encourage people into the city centre (1 mark)</li> <li>Queen street station was upgraded to encourage the use of public transport (1 mark)</li> <li>low emission zones have been introduced to improve air quality. (1 mark)</li> <li>If Edinburgh chosen:</li> <li>St James Quarter was part of the redevelopment of a 1970s shopping centre to make use of the valuable space available (1 mark). These converted buildings also afforded the opportunity for new land users to move in (1 mark)</li> <li>indoor shopping malls encourage customers back into the city centre (1 mark)</li> <li>Edinburgh Tram system was extended to encourage the use of public transport (1 mark)</li> <li>Edinburgh Tram system was extended to encourage more tourists into the area (1 mark)</li> <li>the extension to the National Gallery was built to encourage more tourists into the area (1 mark)</li> <li>the Royal Infirmary has been redeveloped into housing and office space. (1 mark)</li> </ul>

Question	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
10.	Award 1 mark per valid point.  Award 2 marks for a developed point.  Award a maximum of 1 mark for a list of improved facilities (for example better housing, better toilets, better water supplies).  Answer will depend on area of study chosen.  Award a maximum of 4 marks if no specific city/shanty town is referred to.	5	<ul> <li>If Rio de Janeiro chosen:</li> <li>housing was low quality so wooden shacks have been upgraded to permanent dwellings with some services (1 mark) for example, clean-piped water has been provided to help reduce the spread of diseases (1 mark)</li> <li>informal/poor quality housing prompted self-help schemes, where local people are provided with loans to buy materials like bricks to upgrade their homes (1 mark)</li> <li>to help with overcrowding some prefabricated houses were built in Rocinha by the Brazilian Government (1 mark) with basic facilities like toilets and electricity (1 mark)</li> <li>as many shanty towns are illegal, the residents have been given legal rights to the land where their house is built (1 mark)</li> <li>to combat the build-up of rubbish on the streets, roads have been built/improved allowing rubbish collections to take place (1 mark)</li> <li>due to lack of educational opportunities for young people some schools have been built for communities (1 mark)</li> <li>poor health care and diseases prompted the building of health clinics (1 mark)</li> <li>due to the low standard of living of residents, some charities have also donated money to help improve Rocinha (1 mark), eg, by providing computers in schools (1 mark)</li> <li>drug related crime was an issue so security has been improved by having more police patrols. (1 mark)</li> </ul> Or any other valid point.

Question	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
Question 11.			<ul> <li>Economic</li> <li>If % population employed in agriculture is chosen: <ul> <li>in developing countries people earn lower wages in farming resulting in a lower standard of living (1 mark)</li> <li>countries with a low proportion of people in farming indicates a high level of mechanisation (1 mark)</li> <li>in developed countries there are fewer people working in farming because they can afford to import food from other countries (1 mark)</li> <li>people in the developed world work in mainly secondary and tertiary industries as there is more money to be made in these sectors (1 mark) This means that people have a higher standard of living due to higher wages. (1 mark)</li> </ul> </li> <li>If Gross Domestic Product (GDP) is chosen: <ul> <li>if the GDP is high, the country tends to be rich, with many industries producing high value goods. (1 mark) This means that the service industry is likely to be well developed with services such as hospitals and schools for the population (1 mark)</li> </ul> </li> </ul>
			<ul> <li>if the GDP is low, the country tends to be poor due to mainly producing and selling primary goods. (1 mark)</li> <li>If average income per person per year is chosen:</li> <li>if the average income per person is high, the country tends to be richer, with many well-paid and skilled jobs (1 mark). The country may make more money from manufacturing high value goods (1 mark)</li> <li>if the average income per person is low, the country tends to be poorer due to many people still being employed in agriculture. (1 mark)</li> <li>Social</li> <li>If infant mortality is chosen:</li> <li>in developing countries there is a high infant mortality rate as they have less money to spend on healthcare (1 mark)</li> <li>sanitation may be poorer, increasing the spread of disease to babies (1 mark)</li> <li>there may be shortages of food, which leads to high infant mortality rates. (1 mark)</li> </ul>

Question	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
			<ul> <li>If life expectancy at birth is chosen:</li> <li>in developed countries there is a higher life expectancy as there is greater access to health care (1 mark)</li> <li>in developed countries they have more advanced treatments such as heart bypass surgery (1 mark), which helps more people to live longer (1 mark)</li> <li>countries with higher life expectancies have access to clean water and food (1 mark) reducing the infant mortality rate (1 mark)</li> <li>many jobs are less strenuous and less dangerous in developed countries, which improves life expectancy (1 mark)</li> <li>governments invest more money in elderly care in developed countries, resulting in people living longer. (1 mark)</li> <li>If % people who can read and write is chosen:</li> <li>countries with low literacy levels may struggle to provide education to all communities (1 mark)</li> <li>in some communities there can be pressure on young people to work rather than attend school (1 mark)</li> <li>governments invest more money in education in developed countries, resulting in more people being able to read and write. (1 mark)</li> <li>Or any other valid point.</li> </ul>

Question	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
12.	Award 1 mark for each valid point.  Award 2 marks for a developed point.  For full marks, both advantages and disadvantages should be mentioned. If not mark out of 4.  Accept different reasons for higher yields/profits.	5	<ul> <li>Advantages:</li> <li>new technology and machinery has allowed farmers to complete jobs faster (1 mark) and more efficiently eg, using GPS to manage field tasks, or automatic milking parlours (1 mark). The use of modern computerised irrigation systems deliver the appropriate amount of water to the crops, improving crop yield (1 mark) and providing the farmer more profit (1 mark) and reducing the effects of seasonal droughts (1 mark)</li> <li>genetically modified seeds can improve crop yields because they are resistant to disease (1 mark) This results in an increase in food supply (1 mark) and increases the farmer's profit (1 mark)</li> <li>certain crop varieties can be grown in areas where they could not be previously grown (1 mark) GM crops reduce the need for pesticides which helps insects and the endangered bee population (1 mark)</li> <li>chemical fertilisers and insecticides are widely used to improve production on farms. (1 mark)</li> <li>bisadvantages:</li> <li>the overuse of chemicals results in environmental damage (1 mark)</li> <li>some governments have not approved GM crops as they feel it may have a negative impact on the natural environment (1 mark) and the impact on people's health is not yet known (1 mark)</li> <li>the price of new technology is too expensive for some small farming units and makes it harder for them to compete in the modern market (1 mark)</li> <li>new technology requires less labour so people become unemployed (1 mark)</li> <li>This has led to rural depopulation. (1 mark)</li> </ul>

Q	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 of 1 mark for a list of countries from the same category.  Award 1 mark for a trend.	4	<ul> <li>Overall, developed countries emit more CO<sub>2</sub> emissions from fossils fuels (1 mark)</li> <li>Countries with 0-0.9 tonnes of CO<sub>2</sub> emissions per capita are Pakistan, Myanmar, Afghanistan, Papua New Guinea, and most of the continent of Africa including Angola, Mali, Cameroon (1 mark)</li> <li>Philippines, Guatemala, India, Fiji, Bolivia, Morocco, Namibia, Congo, Syria are among countries that produce 1-1.9 tonnes of CO<sub>2</sub> emissions per capita (1 mark)</li> <li>Between 2-4.9 tonnes of CO<sub>2</sub> emissions per capita are produced by Indonesia, Mexico, Botswana, Argentina, Algeria, North Korea, Uzbekistan, Armenia (1 mark)</li> <li>China, South Africa, Iran, Brunei, Malaysia, New Zealand &amp; European countries such as UK and Norway produce 5-9.9 tonnes of CO<sub>2</sub> emissions per capita (1 mark)</li> <li>Over 10 tonnes of CO<sub>2</sub> emissions per capita are emitted by USA. (1 mark)</li> </ul> Or any other valid point.

Question	General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
(b)	Award 1 mark per valid point.  Award 2 marks for a developed point.  Award 0 marks for description.  Credit all valid effects of climate change.	6	<ul> <li>global temperatures are rising because of increasing greenhouse gas emissions which act like a blanket wrapped around the earth, trapping the sun's heat (1 mark)</li> <li>under higher temperatures, declines in crop yields and quality are happening (1 mark)</li> <li>there is an increase in number of people in the world facing hunger and starvation since higher temperatures affect food production (1 mark)</li> <li>due to the build-up of greenhouse gases in the atmosphere that trap the sun's heat, weather patterns around the world have changed (1 mark)</li> <li>the effects of climate change now endanger people's lives due to an increase in heat waves, intense droughts, flooding (1 mark)</li> <li>conditions like sea-level rise have forced whole communities to relocate (1 mark)</li> <li>due to climate change, oceans are warmer, more acidic, and less productive today (1 mark)</li> <li>sea level has continued to rise over the past decades due to increasing ice loss in the world's polar regions (1 mark)</li> <li>changes in snow cover, lake and river ice, and permafrost in many Arctic regions have disrupted food supplies from herding, hunting and fishing for indigenous communities (1 mark)</li> <li>as global temperatures rise, coral reefs and marine biodiversity are endangered. (1 mark)</li> </ul>

Q	uestion	General marking instructions for this type of question	Max mark	Specific 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	<ul> <li>overall, deforestation has increased in the Amazon (1 mark)</li> <li>in 2013 deforestation in the Amazon was just under 1 million hectares and rose to around 1.3 million hectares in 2014 (1 mark)</li> <li>between 2014 and 2016 deforestation increased by approximately 1.7 million hectares (1 mark)</li> <li>between 2017 and 2018 deforestation decreased by approximately 1.4 million hectares (1 mark)</li> <li>between 2013 and 2023 deforestation increased by approximately 1.2 million hectares. (1 mark)</li> </ul> Or any other valid point.
	(b)	Award 1 mark for each valid point.  Award 2 marks for a developed point.  Award a maximum of 5 marks if no reference to a named area.	6	<ul> <li>Answer will depend on area of study chosen.</li> <li>over half of the Brazilian Rainforest has been designated as national parks/forest reserves, protecting it from logging and agriculture (1 mark)</li> <li>trees are selected for felling when they reach a particular height which allows young trees a guaranteed life span and the forest to regain full maturity after around 30–50 years (1 mark) Selective logging of mature trees ensures that the rainforest canopy is preserved (1 mark)</li> <li>planned and controlled logging ensures that for every tree logged another is planted which allows the forest to recover (1 mark) because the younger trees gain more space and sunlight to grow (1 mark)</li> <li>the Brazilian government has increased law enforcement on rainforest crime by focusing their efforts on patrolling roads leading into the rainforest (1 mark)</li> <li>Agro forestry — (growing trees and crops at the same time) lets farmers take advantage of shelter from the canopy of trees and prevents soil erosion (1 mark). The crops benefit from the nutrients from the dead organic matter, improving soil quality (1 mark)</li> <li>there are international agreements to protect tropical rainforests between different countries through debt-for-nature swaps. This is when a country, which is owed money by another country, cancels part of the debt if an agreement is made by the debtor country to ensure the conservation of its tropical rainforests (2 marks)</li> </ul>

Question	General marking instructions for this type of question ma	_	Specific marking instructions for this question
			<ul> <li>in Costa Rica there is education to promote the value and benefits of biodiversity associated with tropical rainforests to conserve them for future generations (1 mark)</li> <li>ecotourism can encourage sustainable tourism whilst ensuring that the money generated is used to protect and conserve the tropical rainforest (1 mark). For example, in Costa Rica they have encouraged the use of alternative timber sources such as rubber trees (1 mark)</li> <li>permanent forest areas have also been designated by governments where no change of land use is allowed to maintain tree cover. (1 mark)</li> <li>Or any other valid point.</li> </ul>

Que	estion	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
<b>15.</b> (a	a)	Award 1 mark for a trend.  Award 1 mark for each valid point.  Award 0 marks for highest/lowest.	4	<ul> <li>overall, the number of earthquakes decreased between 2011 and 2021 (1 mark)</li> <li>the number of earthquakes 7.0-7.9 has decreased between 2011 to 2021 from 19 to 16 earthquakes (1 mark)</li> <li>in 2013 the number of earthquakes 7.0-7.9 was 17, this decreased to 9 by 2020 (1 mark)</li> <li>the number of earthquakes 5.0-5.9 has decreased by 229 from 2011 to 2021 (1 mark)</li> <li>the number of earthquakes of magnitude 6.0-6.9 increased from 123 to 135 between 2013 and 2019. (1 mark)</li> <li>Or any other valid point.</li> </ul>
(b	0)	Award 1 mark for each valid point.  Award 2 marks for a developed point.  Candidates should refer to a named example(s). If no reference to named area(s), a maximum of 5 marks should be awarded.  For full marks, both people and landscape must be mentioned, otherwise, award a maximum of 5 marks.	6	<ul> <li>the Afghanistan earthquake of 22 June 2022 killed over 1000 people as the earthquake hit a highly populated area (1 mark)</li> <li>in addition, over 6000 were injured as many buildings collapsed (1 mark)</li> <li>an estimated 30 aftershocks followed the main earthquake further killing people and damaging property (1 mark)</li> <li>the earthquake damaged many homes including over 80% of houses in the Khost region as many were made of unstable materials such as mud bricks (1 mark)</li> <li>roads were damaged especially in the Paktika region which meant it was difficult to get aid to the affected villages (1 mark)</li> <li>the damage to infrastructure also meant that it was difficult to transport injured people to hospitals quickly (1 mark)</li> <li>villages affected reported schools damaged or destroyed, impacting education (1 mark)</li> <li>in addition, healthcare clinics and water pipes were also damaged, leading to risk of disease spreading such as cholera. (1 mark)</li> </ul> Or any other valid point.

Q	Question		General marking instructions for this type of question	Max mark	Specific marking instructions for this question
16.	(a)		Award 1 mark for each valid point.  Award 1 mark for a trend.  Award 0 marks for highest/lowest.	4	<ul> <li>overall, the value of UK exports has increased (1 mark)</li> <li>between January 2021 and December 2021, UK exports increased from approximately £46,000 million to approximately £59,500 million (1 mark)</li> <li>between January 2021 and February 2021, the value of UK exports increased by approximately £2000 million (1 mark) UK export value continued to increase until May 2021 from approximately £48,000 million to approximately £53,000 million (1 mark). It then fell by approximately £3000 million by August 2021 (1 mark)</li> <li>from August 2021 UK export value increased again, from approximately £50,000 million to approximately £59,500 million in December 2021. (1 mark)</li> <li>Or any other valid point.</li> </ul>
	(b)		Award 1 mark per valid point.  Award 2 marks for a developed point.	6	<ul> <li>developed countries have access to higher levels of education resulting in a more skilled workforce (1 mark)</li> <li>some countries form trade alliances like the EU which create barriers to trade with non-members (1 mark)</li> <li>developing countries mainly trade in cheaper primary products such as tea and coffee resulting in less income (1 mark). They often rely on exporting only a few products so if drought affects their crops, they may be left with little to trade for profit (1 mark)</li> <li>developing economies are also at the mercy of the fluctuating world market so producers may lose out if prices drop (1 mark). This means these countries may need to turn to borrowing and increase their debts (1 mark)</li> <li>in order to pay off the interest on these loans they then must borrow more money, further limiting their chances of development. (2 marks)</li> </ul> Or any other valid point.

Question	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
17. (a)	Award 1 mark for each valid point.  Award 1 mark for a trend.  Award a maximum of 1 mark for a list of countries from the same category.  Award 0 marks for reference to no data.	4	<ul> <li>the continent of Africa carried the overall lowest amount of airline passenger journeys in 2020 (1 mark)</li> <li>the Democratic Republic of the Congo had less than 1 million airline passenger journeys (1 mark)</li> <li>Argentina had between 1-49 million airline passenger journeys (1 mark)</li> <li>United Kingdom and Australia had between 50 and 499 million airline passengers (1 mark)</li> <li>China had more than 500 million airline passenger journeys. (1 mark)</li> <li>Or any other valid point.</li> </ul>
(b)	Award 1 mark for each valid point.  Award 2 marks for a developed point.  For full marks, both people and environment must be mentioned, otherwise award a maximum of 5 marks.  Accept both positive and negative impacts.	6	<ul> <li>If Kenya is chosen:</li> <li>eco-tourism promotes increased environmental awareness and conservation projects to protect the environment (1 mark)</li> <li>developing countries view eco-tourism as a significant means of developing local regions and generating income (1 mark)</li> <li>in Kenya, Maasi women have found work as tour guides or selling souvenirs which has raised living standards (1 mark), eg, making school fees affordable and less dependent on male pastoralist farmers selling livestock (1 mark)</li> <li>the Kilaguni Serena Safari Lodge runs an afforestation programme for locals and guests to participate in, where locals are involved, it promotes awareness of both local culture and traditions (1 mark)</li> <li>many safari camps for example, Kilaguni Serena Safari Lodge use solar power to reduce their carbon footprint (1 mark) Many camps have a zero-waste policy and recycle paper and cardboard to make briquettes rather than relying on deforestation for fuel (1 mark)</li> <li>tour companies can be owned by foreign businesses and therefore profits rarely reach local communities (1 mark)</li> <li>in Kenya 70% of the land is used by pastoralist farmers for example, Maasai, as more land is turned into national parks, pastoralists lose grazing lands and income as their herds can no longer roam free (2 marks)</li> <li>as more land is turned into wildlife reserves, infrastructure such as roads, lodges, power and sanitation works are needed which leaves a permanent footprint on the landscape (1 mark). Locals benefit from improved infrastructure opening access to shopping/health centres or livestock markets that were previously inaccessible in the rainy seasons (1 mark)</li> </ul>

Question		on	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
					<ul> <li>the protection to wildlife offered by the creation of national parks has led to an increase in wildlife (1 mark) however this has also fuelled an increase in illegal poaching (1 mark). Charities such as the 'Nairobi Elephant Nursery' use income from ecotourism to fund anti-poaching projects (1 mark) as well as rescue and rehabilitation programmes for elephants. (1 mark)</li> <li>Or any other valid point.</li> </ul>

Que	estion	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
18. (	a)	Award 1 mark for each valid point.  Award 1 mark for a trend.  Award a maximum of 1 mark for a list of countries from the same category.  Award 0 marks for reference to 'No data'.	4	<ul> <li>the lowest death rates from cancer are in developing countries (1 mark)</li> <li>African countries that have a death rate of 0-99 per 100,000 include Kenya and South Africa (1 mark)</li> <li>Brazil has a death rate of 100-199 per 100,000 (1 mark)</li> <li>USA, Canada and the United Kingdom all have a death rate of 200-299 per 100,000 (1 mark)</li> <li>Germany, Italy and Japan have more than 300 deaths per 100,000. (1 mark)</li> <li>Or any other valid point.</li> </ul>
	b)	Award 1 mark for each valid point.  Award 2 marks for a developed point.  For full marks, candidates should refer to effects on both people and the wider community/country, otherwise mark out of 5.  Award up to 2 marks for symptoms with a maximum of 1 mark for a simple list of symptoms.  If candidate writes about more than one disease then mark all and award the highest marks.	6	For heart disease, symptoms may include:  • if arteries become partially blocked this can lead to chest pain/angina (1 mark)  • doing any physical activity can lead to shortness of breath (1 mark)  • a person may feel pain/numbness/coldness in some parts of their body due to poor circulation (1 mark)  • if arteries become fully blocked this can lead to a heart attack (1 mark)  • during a heart attack a person may experience dizziness, sweating, nausea, breathlessness (1 mark)  • the heart may become too weak to pump blood around the body which will lead to heart failure. (1 mark)  For cancer, symptoms may include:  • a person with bowel cancer may experience changes in their bowel habits such as stomach pain, diarrhoea, and blood in stool (1 mark)  • a persistent cough, chest pain or breathlessness can result from lung cancer (1 mark)  • Some people may develop a lump in parts of their body as the cancer grows (1 mark)  • a cancer sufferer may start to lose weight and become tired/fatigued (1 mark)  • people who receive a diagnosis of cancer may struggle with their mental health and are at greater risk of suicide. (1 mark).  For asthma, symptoms may include:  • people having difficulty with breathing, wheezing and coughing (1 mark)

Question	General marking instructions for this type of question	Max mark	Specific marking instructions for this question
			<ul> <li>physical activity can sometimes be more difficult with asthma and can lead to breathlessness (1 mark)</li> <li>if a person does not manage their asthma well, such as avoiding triggers, then this could lead to an asthma attack. (1 mark)</li> <li>For heart disease, cancer and/or asthma, wider impacts on people and the countries affected may include:         <ul> <li>people with this disease may end up taking more sick days which negatively affects productivity (1 mark)</li> <li>a person's condition could force them to be off work with long-term sickness and may eventually lead to a loss of income (1 mark) which could result in that person and/or their family falling into poverty and lowering their quality of life (1 mark)</li> <li>long-term sickness may put strain on other family members to become carers for them (1 mark) and if they are young carers then their educational attainment and social life is likely to be impacted (1 mark)</li> <li>a country's welfare/benefits system can become increasingly under pressure having to support sick people (1 mark)</li> <li>Death of loved ones can cause grief for families and negatively impact on their health and wellbeing (1 mark)</li> <li>beath of a parent could lead to the family unit breaking up and children having to be cared for by other family members (1 mark)</li> <li>due to the prevalence of the disease, developed countries spend large amounts of money on prevention and on treatment such as medicines (1 mark)</li> <li>hospital beds may be taken up by those with the disease adding extra pressure to health resources (1 mark)</li> <li>governments may need to spend more of the country's budget on the health sector diverting money away from other sectors (1 mark) which could slow development in other areas such as education (1 mark)</li> <li>high prevalence of the disease in a region/country will contribute to a higher death rate an</li></ul></li></ul>
			or any other valid point.