



National  
Qualifications

**X833/75/11**

**Geography**

## **Marking Instructions**

Please note that these marking instructions have not been standardised based on candidate responses. You may therefore need to agree within your centre how to consistently mark an item if a candidate response is not covered by the marking instructions.



## General marking principles for National 5 Geography

*Always apply these general principles. Use them in conjunction with the detailed marking instructions, which identify the key features required in candidates' responses.*

- (a) Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.
- (b) If a 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.
- (c) For credit to be given, points must relate to the question asked.
- (d) 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><b>1 mark</b> for each valid point.</p> <p>Candidates can mention features of erosion <b>and</b> deposition.</p> <p>Features can be identified with a name and/or grid reference.</p> <p>The same feature cannot be awarded multiple marks.</p>	4	<ul style="list-style-type: none"> <li>• Haven Cliff is located in grid square 2689 <b>(1 mark)</b></li> <li>• Seven Rock Point is an example of a headland (327908) <b>(1 mark)</b></li> <li>• there are sand spits at 256897 and 339914 <b>(1 mark)</b></li> <li>• Pinhay Bay is an example of a bay (3290) <b>(1 mark)</b></li> <li>• Broad Ledge is an example of a wave-cut platform <b>(1 mark)</b></li> <li>• there is a sandy beach at Lyme Regis. <b>(1 mark)</b></li> </ul> <p><b>Or any other valid point.</b></p>
	(b)		<p><b>1 mark</b> for each valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p><b>Maximum 2 marks</b> for generic statements about erosion processes <b>including 1 mark</b> for a list of processes.</p> <p><b>1 mark</b> for <b>diagrams</b> which show progression.</p> <p>Well-annotated diagrams can be awarded <b>full marks</b>.</p>	4	<ul style="list-style-type: none"> <li>• during the ice age snow collected in three or more hollows around a mountain <b>(1 mark)</b></li> <li>• the snow turned to ice and formed glaciers, which moved downhill due to gravity <b>(1 mark)</b></li> <li>• the glaciers eroded backwards towards each other removing rocks <b>(1 mark)</b> using the processes of plucking and abrasion <b>(1 mark)</b></li> <li>• plucking is when the ice freezes onto rocks on the side of the landscape and when the ice moves, it rips the rocks out <b>(1 mark)</b></li> <li>• abrasion is when rocks frozen in the base of the ice scour the landscape as the glacier moves <b>(1 mark)</b></li> <li>• these processes make corries on all sides of the mountain <b>(1 mark)</b> and as the glaciers erode backwards into the mountain, the corries get bigger forming sharp arêtes which meet at a pyramidal peak <b>(1 mark)</b></li> <li>• freeze-thaw weathering erodes the top of the mountain and creates a jagged peak. <b>(1 mark)</b></li> </ul> <p><b>Or any other valid point.</b></p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
2.	(a)		<p><b>1 mark</b> for each valid point.</p> <p>Candidates can mention physical features of the river <b>and</b> valley.</p> <p>The same feature cannot be awarded multiple marks.</p>	4	<ul style="list-style-type: none"> <li>the River Axe is flowing in a SW-S direction <b>(1 mark)</b></li> <li>a tributary joins the river at 284973 <b>(1 mark)</b></li> <li>there are several meanders for example, 262948 <b>(1 mark)</b> and an ox-bow lake at 267956 <b>(1 mark)</b></li> <li>the river becomes tidal at 259926 <b>(1 mark)</b></li> <li>the river valley is flat and wide in 2694 <b>(1 mark)</b></li> <li>there is marshland in grid square 2591 <b>(1 mark)</b> and a floodplain in 2695 <b>(1 mark)</b></li> <li>there is an island at 259925. <b>(1 mark)</b></li> </ul> <p><b>Or any other valid point.</b></p>
	(b)		<p><b>1 mark</b> for each valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p><b>Maximum 2 marks</b> for generic statements about erosion processes <b>including</b> 1 mark for a <b>list</b> of processes.</p> <p><b>1 mark</b> for <b>diagrams</b> which show progression.</p> <p>Well-annotated diagrams can be awarded <b>full marks</b>.</p>	4	<ul style="list-style-type: none"> <li>rainwater mixes with carbon dioxide in the air to make a weak carbonic acid <b>(1 mark)</b> which erodes the surface of the limestone by the process of solution <b>(1 mark)</b> where the acidic water dissolves the minerals in the limestone <b>(1 mark)</b></li> <li>over time, joints in a limestone pavement are eroded and made deeper <b>(1 mark)</b></li> <li>when a stream meets the limestone it enlarges the joints in the rock further <b>(1 mark)</b></li> <li>over time the water seeps downwards through rock layers where the joints have been enlarged by chemical weathering <b>(1 mark)</b></li> <li>eventually, the stream will disappear down a swallow hole and flow along underground channels. <b>(1 mark)</b></li> </ul> <p><b>Or any other valid point.</b></p>
3.			<p><b>1 mark</b> for each correct answer.</p>	3	<ul style="list-style-type: none"> <li>A = forestry</li> <li>B = A35 road</li> <li>C = footpath.</li> </ul>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
4.			<p>1 mark for each valid point.</p> <p>2 marks for a developed point.</p> <p>1 mark for a <b>correct grid reference/named example</b> from the OS map.</p> <p><b>No marks</b> for description. Answers must explain the conflict.</p> <p>Answers which do not refer to map evidence score a <b>maximum of 4 marks</b>.</p>	5	<p>Answers will vary depending upon the land uses chosen.</p> <p><b>Problems between tourists and farmers:</b></p> <ul style="list-style-type: none"> <li>tourists can disrupt farming activities as walkers leave gates open, allowing animals to escape <b>(1 mark)</b> for example, on Westhay Farm where the South-West Coast Path runs alongside it <b>(1 mark)</b></li> <li>tourists' dogs can worry animals if let off their lead <b>(1 mark)</b></li> <li>stone walls are damaged by people climbing over them instead of using gates/stiles <b>(1 mark)</b></li> <li>noisy tourists staying at the camp/caravan site near Wood Farm can disturb sheep especially during breeding season <b>(1 mark)</b></li> <li>farmers may restrict walkers access at certain times for example, lambing season <b>(1 mark)</b></li> <li>farm vehicles can slow up tourist traffic on roads for example, A3052 <b>(1 mark)</b></li> <li>people staying at camp/caravan sites could cause litter pollution in the farmers' fields <b>(1 mark)</b> for example, 318927 <b>(1 mark)</b></li> <li>famers spreading slurry may anger tourists in nearby campsites. <b>(1 mark)</b></li> </ul> <p><b>Problems between industry and tourists:</b></p> <ul style="list-style-type: none"> <li>tourists want to see the beautiful upland or coastal scenery but quarries spoil the natural beauty of the landscape <b>(1 mark)</b> for example, the quarry at 311918 <b>(1 mark)</b></li> <li>dust and noise from lorries used to remove the stone from the area <b>(1 mark)</b></li> <li>lorries used to remove the stone endanger wildlife and put visitors off returning to the area <b>(1 mark)</b></li> <li>this threatens local tourist-related jobs for example, in local restaurants in Lyme Regis <b>(1 mark)</b></li> <li>the large lorries needed to remove the quarried stone cause air pollution which spoils the atmosphere for tourists <b>(1 mark)</b></li> <li>lorries cause traffic congestion on narrow country roads for example, B3165 which slows traffic and delays drivers <b>(1 mark)</b></li> <li>the peace and quiet for visitors is disturbed by the blasting of rock <b>(1 mark)</b></li> <li>the carpet factory in grid square 2897 could cause water pollution and impact on tourists doing water sports in the River Axe. <b>(1 mark)</b></li> </ul> <p><b>Or any other valid point.</b></p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
5.			1 mark for each correct answer.	3	<ul style="list-style-type: none"> <li>• A = Polar maritime</li> <li>• B = Polar continental</li> <li>• C = Tropical maritime.</li> </ul>
6.			1 mark for each valid point. 2 marks for a developed point. No marks for description of weather.	6	<ul style="list-style-type: none"> <li>• at 6am high air pressure is covering the country and cold air will be sinking making temperatures cold as it's mid-December (1 mark) and there is often a lack of cloud allowing heat to escape, bringing very low temperatures (1 mark)</li> <li>• skies will be clear as there are no fronts to cause cloud formation in an anticyclone (1 mark)</li> <li>• high pressure in winter brings cold overnight temperatures/freezing conditions which results in frost and icy roads (1 mark)</li> <li>• a cold front will move over eastern Scotland making snow more likely to fall (1 mark)</li> <li>• isobars become closer together so wind speed will increase. (1 mark) This could make bridges dangerous for lorries (1 mark)</li> <li>• stronger winds and heavy snowfall potentially cause blizzards, reducing visibility and creating hazardous driving conditions. (2 marks)</li> </ul> <p>Or any other valid point.</p>
7.			1 mark for each valid point. 2 marks for a developed point. Award 1 mark for a list of problems.	5	<ul style="list-style-type: none"> <li>• hose-pipe bans could be enforced due to lack of water/rainfall (1 mark)</li> <li>• drought conditions reduce the yield of farmers' crops (1 mark) this can have a negative impact on availability of food (1 mark) and affect farmers' profits (1 mark)</li> <li>• people suffer from sunburn and dehydration (1 mark)</li> <li>• more people admitted to hospital with heatstroke (1 mark) putting a strain on medical resources (1 mark)</li> <li>• fires can quickly spread due to dry conditions (1 mark) endangering wildlife and buildings (1 mark)</li> <li>• another disadvantage of summer anticyclones is severe thunderstorms which can cause power cuts and transport disruption. (1 mark)</li> </ul> <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.			Identify the urban land use zones using OS map from given list. <b>1 mark</b> for each correct answer.	3	<ul style="list-style-type: none"> <li>• CBD – 6051</li> <li>• new housing – 6058</li> <li>• old housing – 5950</li> </ul>
9.			<b>1 mark</b> for each correct answer.	3	<ul style="list-style-type: none"> <li>• A – 2.5 km</li> <li>• B – 3.25 km</li> <li>• C – 6 km</li> </ul>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
10.	(a)		<p><b>1 mark</b> per valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p>If no reference to the Ordnance Survey map then mark out of <b>3 marks</b>.</p> <p>Answer must refer to both advantages and disadvantages for <b>full marks</b>. Otherwise mark out of <b>4 marks</b>.</p> <p>Answers must be explanatory.</p> <p><b>No marks</b> for description.</p> <p><b>No marks</b> for grid references.</p>	<b>5</b>	<p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>the land is flat, so easier to build on (<b>1 mark</b>)</li> <li>there is reasonable flat land nearby for expansion or car parking if needed (<b>1 mark</b>)</li> <li>people living in nearby areas, such as Skelton, could provide a workforce (<b>1 mark</b>)</li> <li>the A1237 is close by to provide easy transport to the area. (<b>1 mark</b>)</li> </ul> <p><b>Disadvantages:</b></p> <ul style="list-style-type: none"> <li>there is a small river running through Area K which could lead to flooding (<b>1 mark</b>) and this could limit the land available for the development or increase building costs (<b>1 mark</b>)</li> <li>residents of Skelton Moore may object to the plans due to visual pollution (<b>1 mark</b>)</li> <li>there is a small forest (592564) which would cost money to clear (<b>1 mark</b>) or may cause objections to be raised due to loss of wildlife habitat. (<b>1 mark</b>)</li> </ul>
	(b)		<p>Area Z (6051) is the Central Business District (CBD) and Area Y (6057) is the suburbs.</p> <p>Answers must refer to <b>the differences</b> between areas.</p> <p><b>No marks</b> for descriptions of a single area.</p> <p><b>1 mark</b> for each valid point.</p> <p><b>2 marks</b> for a developed point.</p>	<b>5</b>	<ul style="list-style-type: none"> <li>area Y is an area of new housing, whereas area Z is the older CBD (<b>1 mark</b>). Area Y has a varied street pattern, with crescents and cul-de-sacs whereas area Z is more grid iron (<b>1 mark</b>)</li> <li>many main roads lead to area Z whereas only minor roads lead to area Y (<b>1 mark</b>), meaning less noise and pollution in area Y than in area Z (<b>1 mark</b>)</li> <li>there are a lot of attractions in area Z, such as a Tourist Information Office and several museums, whereas area Y is purely residential (<b>1 mark</b>)</li> <li>there are areas of open countryside and also woodland in area Y but no evidence of these in area Z, (<b>1 mark</b>) therefore a greener environment in area Y than in area Z. (<b>1 mark</b>)</li> </ul>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
11.			<p><b>1 mark</b> for each valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p><b>No marks</b> for description.</p> <p>Candidates are required to explain <b>differences</b> between the population structures of each country.</p> <p>Do not accept reverse points.</p>	<b>6</b>	<ul style="list-style-type: none"> <li>• a higher percentage of the population in Ethiopia is under 19 because birth rates are higher in developing countries (<b>1 mark</b>). Contraception is not always widely available and information on birth control is not always easily accessed (<b>1 mark</b>). Women have access to less education in developing countries, so tend to have more children, earlier in their lives (<b>1 mark</b>)</li> <li>• there is a large percentage of people over the age of 65 in Germany, as Germany has a better health care system than Ethiopia (<b>1 mark</b>). They have access to more sophisticated treatments, such as heart by-pass surgery (<b>1 mark</b>)</li> <li>• the higher living standards in Germany allow women to have careers, which reduces the birth rate (<b>1 mark</b>)</li> <li>• child mortality rates are higher in Ethiopia so women may have more children to ensure some survive into adulthood (<b>1 mark</b>). Many families in developing countries like Ethiopia may expect their children to work so they can help to look after them in their old age. (<b>1 mark</b>)</li> </ul>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
12.			<p><b>1 mark</b> for each valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p>If only one indicator is mentioned, mark out of <b>2 marks</b>.</p>	<b>4</b>	<p><b>Economic</b></p> <p><b>If % of population employed in agriculture is chosen:</b></p> <ul style="list-style-type: none"> <li>• people earn lower wages in farming resulting in a lower standard of living (<b>1 mark</b>)</li> <li>• countries with high proportions of people employed in agriculture tend to be developing countries (<b>1 mark</b>)</li> <li>• countries with a low proportion of people in farming indicates a high level of mechanisation. (<b>1 mark</b>)</li> </ul> <p><b>If Gross Domestic Product is chosen:</b></p> <ul style="list-style-type: none"> <li>• if the GDP is high, the country tends to be rich, with many industries producing high value goods (<b>1 mark</b>)</li> <li>• this means that the service industry is likely to be well developed with services such as hospitals and schools for the population. (<b>1 mark</b>)</li> </ul> <p><b>Social</b></p> <p><b>If people per doctor is chosen:</b></p> <ul style="list-style-type: none"> <li>• more developed countries have the money to employ more doctors, so they have low numbers of population per doctor (<b>1 mark</b>)</li> <li>• this shows that the country has enough money to invest in education. (<b>1 mark</b>)</li> </ul> <p><b>If life expectancy at birth is chosen:</b></p> <ul style="list-style-type: none"> <li>• countries who have higher life expectancy tend to be more developed as they can afford to spend money on health care (<b>1 mark</b>)</li> <li>• more advanced treatments are available in developed countries, such as heart by-pass surgery (<b>1 mark</b>), which helps more people to live longer (<b>1 mark</b>)</li> <li>• countries with higher life expectancies have access to clean water and food. (<b>1 mark</b>) reducing the infant mortality rate. (<b>1 mark</b>)</li> </ul> <p><b>Or any other valid point.</b></p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
13.			<p><b>1 mark</b> for a valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p>Marks can be awarded for both positive and negative impacts.</p> <p>Marks should be awarded for only <b>two</b> factors.</p> <p><b>Maximum 3 marks</b> for any <b>one</b> factor.</p>	<b>4</b>	<p><b>Impact of new technology:</b></p> <ul style="list-style-type: none"> <li>mechanisation means less manual work for the farmer and harvesting is quicker and more efficient (<b>1 mark</b>)</li> <li>the use of fertilisers and pesticides increase crop yields (<b>1 mark</b>), which leads to increased profit for the farmer (<b>1 mark</b>), which can increase his standard of living (<b>1 mark</b>)</li> <li>increased yields allow a surplus to be produced, encouraging trade to take place (<b>1 mark</b>)</li> <li>however, mechanisation can result in unemployment as machines do the work previously carried out by people (<b>1 mark</b>)</li> <li>this can lead to rural depopulation in some areas as people move to the city looking for work (<b>1 mark</b>)</li> <li>machinery is expensive and not all farmers can afford it so find it difficult to compete with those who can (<b>1 mark</b>)</li> <li>increased use of fertilisers and pesticides can be dangerous to people and damage the environment. (<b>1 mark</b>)</li> </ul> <p><b>Genetic modification:</b></p> <ul style="list-style-type: none"> <li>the introduction of GM crops can give the farmer a more reliable harvest as the seeds are designed to resist disease (<b>1 mark</b>)</li> <li>crops can be grown in adverse conditions for example, lack of water (<b>1 mark</b>) ensuring a better food supply for the people (<b>1 mark</b>)</li> <li>HYV of crops require a more reliable source of water-irrigation increases costs (<b>1 mark</b>)</li> <li>the poorest farmers have been unable to buy GM seeds as they are too expensive so get no benefit from them. (<b>1 mark</b>)</li> </ul> <p><b>Biofuels:</b></p> <ul style="list-style-type: none"> <li>the increased demand for biofuels can result in higher crop prices, improving the farmers' income (<b>1 mark</b>) and can produce jobs (<b>1 mark</b>)</li> <li>trees do not have to be removed for fuel, so they protect the soil from erosion (<b>1 mark</b>)</li> <li>energy used to grow and process the crops can be environmentally damaging, for example, tractors burning diesel increases air pollution (<b>1 mark</b>)</li> <li>use of biofuels help farmers to ensure farms are clean and safe. (<b>1 mark</b>) gives access to clean reliable power. (<b>1 mark</b>)</li> </ul> <p><b>Or any other valid point.</b></p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
14.	(a)		<p>1 mark for each valid point.</p> <p>1 mark for a list.</p> <p>Four different categories <b>must</b> be mentioned for <b>full marks</b>.</p> <p>No marks for countries with no data.</p>	4	<ul style="list-style-type: none"> <li>most countries in Africa have a moderate to high risk (1 mark)</li> <li>Kenya and South Africa have an extreme risk (1 mark)</li> <li>places that have a low risk include the USA, Canada and Russia (1 mark)</li> <li>places with a moderate risk include Australia, Mexico, Brazil and most of Europe (for example, Sweden) (1 mark)</li> <li>places with a high risk include Argentina, Chile, China and Algeria. (1 mark)</li> </ul> <p>Or any other valid point.</p>
	(b)		<p>1 mark for each valid point.</p> <p>2 marks for a developed point.</p> <p>Marks for explanatory points only not for description.</p> <p>Credit can still be given for effects linked to changing sea levels.</p> <p>Answers must refer to effects not causes.</p>	6	<ul style="list-style-type: none"> <li>increased temperatures are causing ice caps to melt so polar habitats are beginning to disappear (1 mark)</li> <li>melting ice causes sea levels to rise threatening low lying island nations, such as Maldives (1 mark)</li> <li>an increase in sea temperatures causes the water to expand, compounding the problem of flooding (1 mark)</li> <li>global warming is affecting weather patterns, leading to more droughts, crop failures and problems with food supply (1 mark) and causing more extreme weather, for example, tropical storms (1 mark)</li> <li>tourism problems will increase as there will be less snow in some mountain resorts (1 mark)</li> <li>global warming could threaten the development of developing countries as restrictions on fossil fuel use may be imposed to slow the rate of increasing CO2 levels (1 mark)</li> <li>the range of tropical diseases like malaria may spread as temperatures rise (1 mark)</li> <li>plant growth will be affected, and some species will thrive in previously unsuitable areas (1 mark)</li> <li>higher temperatures may cause water shortages (1 mark)</li> <li>acidification of the oceans results in loss of coral (1 mark)</li> <li>this might reduce tourism on the Great Barrier Reef (1 mark)</li> <li>increasing temperatures could lead to less snow in some places adversely affecting winter sports (1 mark)</li> </ul>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					<ul style="list-style-type: none"> <li>this could lead to loss of jobs in skiing areas such as the Scottish Highlands or French Alps. (1 mark)</li> </ul> <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
15.	(a)		<p>Both temperature and rainfall must be mentioned for <b>full marks</b>.</p> <p><b>1 mark</b> per valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p><b>Maximum 2 marks</b> if no reference to figures.</p>	4	<ul style="list-style-type: none"> <li>winters are very cold, and the summer is cool (<b>1 mark</b>)</li> <li>the lowest temperature of the year is -37°C which is in February (<b>1 mark</b>)</li> <li>the highest temperature only reaches 4°C in July (<b>1 mark</b>)</li> <li>there is a large temperature range of 41°C (<b>1 mark</b>)</li> <li>annual precipitation in Isachsen is 126mm (<b>1 mark</b>) falling mostly during summer (<b>1 mark</b>)</li> <li>the lowest precipitation is 3mm in March and December (<b>1 mark</b>)</li> <li>the highest precipitation only reaches 26mm in August. (<b>1 mark</b>)</li> </ul> <p><b>Any other valid point.</b></p>



Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
	(b)		<p><b>1 mark</b> per valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p><b>Maximum of 5 marks</b> if no reference to a named area.</p>	<b>6</b>	<p>Answer will depend on area of study.</p> <p>Management strategies include:</p> <ul style="list-style-type: none"> <li>national and state parks have been established to preserve and protect areas of tundra (<b>1 mark</b>) for example, Russia has many national parks, including the Russian Arctic above the Arctic Circle (<b>1 mark</b>)</li> <li>parks are home to polar bears, reindeer, walrus and beluga whales, and attract visitors to develop appreciation for tundra regions (<b>1 mark</b>)</li> <li>most governments have promised to reduce greenhouse gases by signing up to the Kyoto Protocol (<b>1 mark</b>), to help reduce the impact of global warming in the tundra (<b>1 mark</b>)</li> <li>wildlife organizations aim to educate people about the tundra for example, to understand its' fragility and be more conscious of human impact (<b>2 marks</b>)</li> <li>The Polar Bears International conservation group, for example, offers video conferences with schools to raise awareness of tundra issues (<b>1 mark</b>)</li> <li>websites such as Wild Russia have been established to disseminate education and appreciation of the tundra (<b>1 mark</b>)</li> <li>in Canada and Russia, many tundra areas are protected through a national Biodiversity Action Plan (BAP). BAP is an internationally recognised programme designed to protect and restore threatened species and habitats (<b>2 marks</b>)</li> <li>in Alaska the <i>Trans-Alaska Pipeline System</i> is surveyed several times a day, mostly by air (<b>1 mark</b>)</li> <li>other methods of surveying include regular pipeline inspection gauges (PIGs), sent through the line (<b>1 mark</b>) to help reduce potential leaks. (<b>1 mark</b>)</li> </ul> <p><b>Any other valid point.</b></p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
16.	(a)		<p><b>1 mark</b> per valid point.</p> <p>For <b>full marks</b>, both earthquakes and volcanic eruptions should be mentioned.</p>	<b>4</b>	<p>Over the 10 years shown there were more earthquakes than volcanic eruptions every year (<b>1 mark</b>) there were 22 earthquakes in 2009 rising to 24 in 2010 (<b>1 mark</b>); in 2011 the number of earthquakes rose to 30 (<b>1 mark</b>) and then fell again to 27 in 2012 (<b>1 mark</b>); between 2013 and 2017 the number of earthquakes fell from 27 to 19 (<b>1 mark</b>). There were only 2 volcanic eruptions reported as a natural disaster in 2009, rising to 6 in 2010 (<b>1 mark</b>); between 2011 and 2012 the number of volcanic eruptions fell from 6 to 1 (<b>1 mark</b>); the number then rose to 3 in 2013 (<b>1 mark</b>) and rose further to 6 in 2014 (<b>1 mark</b>).</p> <p><b>Or any other valid point.</b></p>
	(b)		<p><b>1 mark</b> per valid point.</p> <p><b>2 marks</b> for a developed point.</p> <p>Mark out of <b>5 marks</b> if no reference to a specific tropical storm.</p> <p><b>1 mark</b> for a list of strategies.</p>	<b>6</b>	<p><b>If Hurricane Michael is chosen:</b></p> <ul style="list-style-type: none"> <li>residents are encouraged to pack an emergency kit. The emergency kit could include; cash, prescription medicines and three days' worth of food and water for people and pets to survive until storm has passed (<b>1 mark</b>)</li> <li>listen to local news for the most up-to-date information on how to prepare and when and where to evacuate the area (<b>1 mark</b>) for example, in Tallahassee, high schools like Chiles High School were identified as evacuation centres by the state governor (<b>1 mark</b>)</li> <li>evacuation routes are clearly sign posted which should be followed if an evacuation is needed (<b>1 mark</b>)</li> <li>Florida's government ordered 120,000 people from the panhandle to evacuate in enough time to save lives (<b>1 mark</b>)</li> <li>use an internal room with no windows to stop injury from flying debris (<b>1 mark</b>)</li> <li>move belongings to an upper floor to reduce flood damage (<b>1 mark</b>)</li> <li>board up windows to prevent leaks and broken glass, and secure doors with storm shutters (<b>1 mark</b>)</li> <li>people learn from previous events about appropriate action to take before, during and after the storm (<b>1 mark</b>)</li> <li>local government have a disaster plan to give support to the most needy. (<b>1 mark</b>)</li> </ul> <p><b>Or any other valid point.</b></p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
17.	(a)		<p>1 mark for a valid point</p> <p>1 mark for a general statement</p> <p>No marks for No data areas.</p>	4	<ul style="list-style-type: none"> <li>fuel is the main export in North America (1 mark)</li> <li>fuel is the largest export in Middle Eastern countries such as Saudi Arabia and Oman (1 mark)</li> <li>metal, minerals and organic is the largest export in countries such as Brazil and Argentina (1 mark)</li> <li>transportation is the largest export in countries such as the UK, France and Spain (1 mark)</li> <li>textiles is the main export in Pakistan. (1 mark)</li> </ul>
	(b)		<p>1 mark for a single point.</p> <p>2 marks for a developed point.</p>	6	<p>Answers will vary depending on case study chosen.</p> <ul style="list-style-type: none"> <li>if consumers make the switch to sustainably grown palm oil, deforestation rates will decrease (1 mark) sustainably grown palm oil would mean that the rainforest removal would stop, and the rich biodiversity would be saved (1 mark)</li> <li>the habitat of species such as the orangutan would also be saved (1 mark)</li> <li>the removal of forest releases carbon into the atmosphere, speeding up global warming (1 mark)</li> <li>if only sustainably grown palm oil is used, the environment will benefit (1 mark)</li> <li>in the tropics, tree roots anchor the soil. Deforestation removes this important structure, allowing heavy rains to wash away nutrient-rich soil (1 mark)</li> <li>crop yields begin to decline, and farmers then have to use expensive fertilisers (1 mark) which eat into their profits and further damage the environment (1 mark)</li> <li>farmers are paid a fair wage for their hard work producing Fair Trade tea in India (1 mark) and safer working conditions are promoted to prevent accidents and injuries (1 mark)</li> <li>Fair Trade also encourages farmers to treat their workers well (1 mark)</li> <li>farmers receive a guaranteed minimum price for their cocoa in Kenya, so they are not affected as much by price fluctuations (1 mark)</li> <li>farmers have access to credit at fair prices, reducing the debt burden (1 mark) more money goes directly to the farmer as the 'middle man', is removed (1 mark)</li> <li>money from Fair Trade bananas in Latin America can be used to improve services in local communities such as schools and clinics (1 mark) which improves the standard of living of the population. (1 mark)</li> </ul> <p>Or any other valid point.</p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
18.	(a)		<p><b>1 mark</b> for each valid point.</p> <p><b>1 mark</b> for a list of countries with the same figure.</p> <p><b>1 mark</b> for a general statement.</p> <p>No marks for countries with no data.</p>	4	<p>Countries which had more than 36 million visitors in 2016 include USA, China and UK. <b>(1 mark)</b> Canada had 21-36 million tourists. <b>(1 mark)</b> Poland and Ukraine had 12–20 million visitors. <b>(1 mark)</b> Australia and Brazil each had 10–11 million tourists visiting in 2016. <b>(1 mark)</b> The number of tourists visiting North America is greater than 21 million. <b>(1 mark)</b></p> <p><b>Or any other valid point.</b></p>

Question		General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
	(b)	<p>1 mark for each valid point.</p> <p>2 marks for a developed point.</p> <p>If no area named mark out of 5 marks.</p>	6	<p><b>If Machu Picchu in Peru is chosen:</b></p> <ul style="list-style-type: none"> <li>• UNESCO have designated Machu Picchu a World Heritage Site, so it is legally protected by international treaties (1 mark)</li> <li>• the Peruvian Government has put strict limits on visitor numbers (1 mark)</li> <li>• permits are required for tourists to trek the Inca Trail (1 mark) and only 500 are issued per day (1 mark) the number of visitors to the Machu Picchu site is capped at 2500 per day (1 mark) and visitors can only enter with a designated tour guide in groups of 16 or less (1 mark) visitors to the site are only permitted entry for a morning or afternoon visit (1 mark) and if they want to spend a full day they have to pay twice (1 mark)</li> <li>• while inside the site certain areas are off limits (1 mark) and visitors have to stick to designated paths. (1 mark)</li> </ul> <p><b>If the Caribbean is chosen:</b></p> <ul style="list-style-type: none"> <li>• tourist industry aims to use social and environmental practices which benefit communities by protecting their environment and their heritage (1 mark) for example, Nature Conservancy Caribbean Challenge is an initiative set up to protect the Caribbean (1 mark)</li> <li>• so far 50 new marine/coastal protected areas are designated (1 mark) aim to get the 40 million tourists who visit the Caribbean to help donate to the cause (1 mark)</li> <li>• a project in Jamaica aims to clean, upgrade and maintain resort towns (1 mark) to increase security presence in order to reduce visitor harassment (1 mark)</li> <li>• in Dominica, the aim is for tourism to have as little harmful impact as possible on unspoiled areas of natural beauty (1 mark)</li> <li>• solar power is used, and water supply is pumped from the river using a silent solar powered pump, to avoid disturbing the surrounding natural habitats (1 mark)</li> <li>• to minimise water consumption, grey water is treated and then re-used in the garden and campers use dry toilets (1 mark)</li> <li>• all kitchen and garden waste is used as compost to grow as much organic food as possible without the use of chemicals or fertilisers (1 mark)</li> </ul>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
					<ul style="list-style-type: none"> <li>• whenever possible, the hotels avoid purchasing packaged goods and shop locally <b>(1 mark)</b></li> <li>• hotels recycle and use biodegradable products and try to keep waste products to a minimum. <b>(1 mark)</b></li> </ul> <p><b>Any other valid point.</b></p>

Question			General marking instructions for this type of question	Max mark	Detailed marking instructions for this question
19.	(a)		<p>1 mark for a valid point.</p> <p>1 mark for a general statement.</p>	4	<ul style="list-style-type: none"> <li>• North America is in the lowest category for cases of tuberculosis (1 mark)</li> <li>• South Africa have over 300 cases of tuberculosis per 100,000 people in 2018 (1 mark)</li> <li>• Australia, New Zealand and Japan had between 0–24 cases of tuberculosis per 100,000 people (1 mark)</li> <li>• Brazil and Venezuela had between 25–99 cases of tuberculosis per 100,000 people (1 mark)</li> <li>• Pakistan and India had between 200–299 cases per 100,000 people. (1 mark)</li> </ul>
	(b)		<p>1 mark for a valid point.</p> <p>2 marks for a developed point.</p> <p>Answers should refer to causes and not effects.</p>	6	<p><b>Causes:</b></p> <ul style="list-style-type: none"> <li>• HIV infection is caused by the human immunodeficiency virus (1 mark)</li> <li>• HIV can be spread through any type of unprotected sex if one of the partners has the virus (1 mark)</li> <li>• HIV can be transmitted through sharing drug needles and syringes contaminated with infected blood (1 mark)</li> <li>• sharing of needles (for example, for tattoos, piercings, and body art) can also lead to infection as someone with HIV who shares a needle also shares the virus (1 mark)</li> <li>• new-born babies are at risk of getting the HIV virus from their mothers if they are HIV positive. (1 mark) This can happen before the baby is born, during birth, or through breastfeeding (1 mark)</li> <li>• lack of health education and gender inequality increases the transmission of HIV (1 mark)</li> <li>• HIV/aids can be caused by infected blood given in a blood transfusion (1 mark), especially in poorer countries where the screening process is not as effective. (1 mark)</li> </ul> <p>Or any other valid point.</p>

[END OF MARKING INSTRUCTIONS]