



# Cambridge IGCSE™

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**GEOGRAPHY**

**0460/12**

Paper 1

**October/November 2020**

MARK SCHEME

Maximum Mark: 75

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2020 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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This document consists of **23** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Each question carries 25 marks. Candidates cannot earn above the maximum marks available within each sub section.

The marking scheme attempts to give guidance about the requirements of each answer and lists a number of responses, which will earn marks along with the general principles to be applied when marking each question.

It should be noted that candidates can earn marks if their answers are phrased differently provided they convey the same meaning as those in the mark scheme. **THE CANDIDATES DO NOT NEED TO USE THE SAME WORDING TO EARN MARKS.**

The notation 'etc.' at the end of an answer in the mark scheme signifies that there may well be other correct responses or examples that can be given credit. Providing the statement is true, relevant to the question asked and not repetition of a previous point made credit should be given.

A point made within one sub-section which is an answer to the question set in a different sub-section should not be given credit as each sub-section asks different questions which require independent answers.

The mark scheme uses semi colons (;) to separate marks and diagonals to separate alternative answers.

During coordination the mark scheme is modified to add points agreed after discussion or to delete any points not allowed. All examiners should ensure that their modified scheme is fully up-to-date before marking begins.

### **Marking Mechanics.**

**Point marking** is used for sections (a) and (b) of each question, although marks are available in specified questions for development of appropriate points. Ticks should be used to clearly indicate where a mark has been allowed. Where a development point has been allowed the symbol 'DEV' should be placed adjacent to the tick. The number of ticks should always be equal to the total number of marks awarded. Only one development mark for each mark scheme point please.

Where a candidate makes a point which is not quite sufficient for credit an upturned 'V' insert symbol should be used. If after careful consideration a mark is awarded which gives 'benefit of doubt' to the candidate the letter 'J' should be placed adjacent to the tick (i.e. the candidate has 'just' achieved the mark).

Crosses are acceptable to signify wrong answers and the letters 'I/R' should be used to indicate those which are irrelevant.

**Levels of response marking** is used for section (c) of each question.

Thus it is the quality of the response that determines which level an answer has achieved rather than the quantity of statements contained within it. However, once assigned to a level the mark achieved within that level is determined by the number of points made.

Levels 1 and 2 are distinguished by whether statements are simple (level 1) or developed/elaborated (level 2). A candidate can immediately enter L2 by making developed points without making any L1 statements. In order to achieve L3 a candidate must have already reached the top end of L2 – in addition his/her answer should have a clear example and if the answer is place specific as well (7 marks). Highlight place specific detail.

Where statements are assigned levels by the examiner this should be indicated by the use of L1 and L2 next to the statements. Ticks should **not** be used on answers that are marked using levels of response marking. L1 annotation should be removed once a L2 is awarded for an answer. L3 annotation is not used. There is no need for a summary level at the end of a response.

**Summary:**

Level 1 (1 to 3 marks):

- 1 simple statement (1 mark)
- 2 simple statements (2 marks)
- 3 simple statements (3 marks)

Level 2 (4 to 6 marks):

- 1 developed statement (4 marks)
- 2 developed statements (5 marks)
- 3 or more developed statements with, e.g. (6 marks)

Level 3 (7 marks)

- 3 or more developed statements + named example with at least one piece of place specific detail.

Question	Answer	Marks
1(a)(i)	Stage 3	1
1(a)(ii)	<p>Birth rate (it) is higher in Stage 2 than Stage 3/BR (it) is static in Stage 2 but falls in Stage 3/BR (it) decreases in Stage 3;            Death rate (it) is higher in Stage 1 than Stage 2/DR (it) decreases in Stage 2/death rate (it) fluctuates in Stage 1 and falls in stage 2.</p> <p><b>Note:</b> Credit comparative statistics however correct wording of 'per thousand' is needed.</p> <p style="text-align: right;">2 @ 1 mark</p>	2
1(a)(iii)	<p>Ideas such as:</p> <p>Due to changes in BR and DR/growth occurs when BR is higher than DR/decrease occurs when DR is higher than BR (1 MAX if no references to stages);            Stage 1 small changes in DR while BR remains the same/both DR and BR stay the same/high BR and DR;            Stage 2 BR stays same but DR falls/BR higher than DR;            Stage 3 BR falls but DR stays the same;            Stage 4 DR stays the same but small changes in BR/both DR and BR stay the same/low BR and DR</p> <p><b>Note:</b> Reference to links between BR and DR needed for credit – do not accept separate reference to BR and DR alone.</p> <p>Do not accept reasons.</p> <p style="text-align: right;">3 @ 1 mark</p>	3

Question	Answer	Marks
1(a)(iv)	<p>Ideas such as;</p> <p>Lack of /don't use/cannot afford contraception;            Lack of education about contraception/about problems of large families;            Children needed for work/to earn money/for farming;            needed to look after elderly/no pensions;            Children needed to do household chores or examples – fetching wood/water, cleaning house, looking after younger children;            Traditional views about large families/polygamy/families want a male child;            Religious/cultural views on contraception/abortion/family size;            High infant mortality/they have more babies so some will survive;            Early marriages/teenage pregnancy;            Lack of emancipation for women/women don't have careers/lack of education for women;            No access to abortion, etc.</p> <p style="text-align: right;">4 @ 1 mark</p> <p><b>Note:</b> accept family planning/contraception as the same idea.</p>	<b>4</b>

Question	Answer	Marks
1(b)(i)	Mogoditshane ... Maun ... Kanye ... Tonota ... Thamaga  All correct = 3 marks 3/4 correct = 2 marks 1/2 correct = 1 mark  <div style="text-align: right;">3 marks</div>	<b>3</b>
1(b)(ii)	Ideas such as: Lack of housing/squatter settlements/homeless; Unemployment/no work/low pay/exploitation; Pressure on/lack of health care/hospitals etc; Pressure on/lack of education/schools; Inadequate (clean) water supply; Power cuts/outages/not enough electricity; Traffic congestion/lots of traffic; Air pollution/water pollution; Lack of food/famine; Poverty; Poor sanitation/hygiene/lack of toilets; Specified crime; People live close together spreading disease/so hard to control disease; Lack of recreational areas Specified impact on surrounding natural environment, e.g. deforestation, loss of habitat, etc. (MAX 1)  <div style="text-align: right;">5 @ 1 mark or development</div> <p><b>Note:</b> Accept ideas expressed as ‘no ...’, ‘lack of ...’ or ‘pressure on ...’</p>	<b>5</b>

Question	Answer	Marks
1(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which explain why a country/area is sparsely populated.</p> <p>Credit L1 for large area with few people (both elements are needed).</p> <p>Inverted v for ‘it is rural’, ‘nobody lives there’</p> <p><u>Level 2</u> (4–6 marks) Uses named example. More developed statements which explain why a country/area is sparsely populated.</p> <p>(<b>Note:</b> Max 5 if no named or inappropriate example)</p> <p><u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements which explain why a country/area is sparsely populated including some place specific reference.</p> <p><u>Content Guide:</u> Answers are likely to refer to: Relief, Climate, Access, Lack of resources, Lack of employment, Much land is used for agriculture/protected environments, etc.</p> <p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1 Area chosen can be at any scale. If country is chosen the bulk of it needs to be sparsely populated (otherwise credit at Max 5). Acceptable examples include Australia, Canada, Egypt, Switzerland, Lesotho, etc.</li> <li>2 Reference to birth controls, immigration/VISAs, war and natural disasters = 0</li> </ol> <p><u>Place specific reference is likely to consist of:</u> Named parts/mountains/roads in the chosen country, Climatic data, Population data, etc.</p>	7



Question	Answer	Marks
2(a)(i)	urbanisation	1 1 mark
2(a)(ii)	Largest in 2007 = <u>North</u> America Estimated to increase the most between 2007 and 2030 = Africa	2 2 @ 1 mark
2(a)(iii)	Ideas such as: Deforestation/loss of vegetation/green areas destroyed; Habitat loss; Wildlife scare/frightened/moves away/killed/endangered/becomes extinct; Loss of food for wildlife/impacts on food chains; Air pollution/increased carbon dioxide or other named gas/smog; Water pollution, etc.	3 3 @ 1 mark
2(a)(iv)	Ideas such as: Loss of working population/economically active/shortage of workers; Mainly women/elderly/children are left behind; There are not enough people to do heavy work/manual work/skilled work (or example, e.g. doctor, teacher); Less people to farm/Less food produced/crops grown/famine/starvation/land remains uncultivated; Family break up/nobody to care for elderly/no father figure to act as role model for boys, etc.; Insufficient numbers to support/closure of services/businesses (or example); Lack of development/(government) investment (or example – installing electricity/building roads), etc.	4 4 @ 1 mark

Question	Answer	Marks
2(b)(i)	<p>Ideas such as:            Made of wood;            With some sacking/plastic sheeting/tarpaulins;            Metal/zinc/corrugated/tin/flat iron <u>roofs</u>;            Small/single storey;            Close together/cramped;            Weak/not stable/easily destroyed;            Boards/shutters over window space, etc.</p> <p style="text-align: right;">3 @ 1 mark</p> <p><b>Note:</b> Features must be visible in the photograph.</p>	<b>3</b>
2(b)(ii)	<p>Ideas such:            People live close to each other so disease easily spread;            Lack of clean/piped/running water;            Water borne disease/typhoid/cholera;            Lack of hygienic food production;            Lack of sanitation/sewage disposal/unhygienic;            Presence of mosquitoes/stagnant water;            Smoke causes breathing problems/lung diseases;            Poor access to health care/doctors/hospitals/clinics;            People lack/cannot afford treatment/vaccinations/medication;            Rubbish/garbage/waste;            Vermin/insects or example, e.g. rats, cockroaches, flies;            Lack of/poor (quality)/lack of variety of food or example, e.g. fruit and vegetables;            Lack of education about health care/hygiene, etc.</p> <p style="text-align: right;">5 @ 1 mark or development</p>	<b>5</b>

Question	Answer	Marks
2(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which explain why people have migrated to a rapidly growing urban area.</p> <p><u>Level 2</u> (4–6 marks) Uses named example.</p> <p>More developed statements which explain why people have migrated to a rapidly growing urban area.</p> <p>(<b>Note:</b> Max 5 if no named or inappropriate example)</p> <p><u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements which explain why people have migrated to a rapidly growing urban area with some place specific reference.</p> <p><u>Content Guide:</u> Answers are likely to include reference to either pulls or pushes such as: Employment/example, (<b>Note:</b> Employment + example = L2 e.g. jobs for unskilled workers Low skilled jobs in factories Earning money in the informal sector) (<b>Note:</b> More jobs/better paid jobs are separate L1 ideas) Education, Health care, Water supply, Electricity, Food supply, Bright lights, Specified natural disasters, War/conflict/persecution; To join family/friends; Greater variety of shops/services, etc.</p> <p><b>Note:</b> Do not double credit pulls/pushes</p> <p><u>Place specific reference is likely to consist of:</u> Locational details, Named services/features, etc.</p> <p><b>Note:</b> Urban area can be LEDC or MEDC</p>	7

Question	Answer	Marks
3(a)(i)	The changing of water to water vapour by <u>plants</u> /evaporation of water by <u>plants/trees</u> .  1 mark	1
3(a)(ii)	From place to place – different amounts/types of plants/vegetation/trees (or examples)  Different times of year – many plants/vegetation/trees will not have leaves all year/plants/vegetation/trees may grow only during certain seasons 2 @ 1 mark	2
3(a)(iii)	X = Overland flow/surface run off Y = Throughflow Z = Ground(water) flow/base flow  3 @ 1 mark	3
3(a)(iv)	On outline map.  4 @ 1 mark  <b>Note:</b> Multiple examples can only be credited if all are correct	4
3(b)(i)	<i>Similarities</i> – both; are narrow/thin/small; have rocks (in channel); flow in a valley; shallow, etc.  <i>Differences:</i> 3.3/1st one has a waterfall/steeper long profile but 3.4 does not; the long profile of 3.4/2nd one is more regular, etc. 3.3 has more turbulent water/white water;  <b>Note:</b> 1 MAX 2 on each of similarities/differences 2 Comparison is needed in the difference section – do not accept ‘one is.one isn’t’ approach.  3 @ 1 mark = 0  Features of the valley Vegetation Meanders/more winding Speed of flow Near source/in upper course Similar width/size	3

Question	Answer	Marks
3(b)(ii)	<p>Ideas such as:            Hydraulic action;            Pressure of water/air pressurized in cracks;            Corrasion/abrasion;            Sandpaper action of rocks carried by water on bed/banks;            Corrosion/solution;            Rocks dissolved by water/chemical action of water on rocks;            Attrition;            Rocks carried by water (reduced in size) as they hit each other            5 @ 1 mark or development</p> <p><b>Note:</b> Only allow definitions of processes as stand alone points or <u>correct</u> development . Do not credit if definitions are linked with wrong names of processes.</p> <p>e.g. Hydraulic action is pressure of water/air pressurized in cracks = 2 marks            Hydraulic action is sandpaper action of rocks carried by water on bed/ banks = 1 mark</p>	5
3(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks)            Statements including limited detail which explain how a delta is formed and/or <u>labelling</u> of features on diagram.</p> <p><u>Level 2</u> (4–6 marks)            More developed or linked statements which explain how a delta is formed</p> <p><u>Level 3</u> (7 marks)            Comprehensive and accurate answer using appropriate terminology, which explains how a delta is formed and labels of features on diagram.</p> <p><u>Content Guide:</u>            Diagram is likely to include labelling of            distributaries,            shape of delta,            flat land,            sea,            fertile soil, etc.</p> <p>Explanation:            Erosion of materials from upstream;            Transportation of load;            Reduction in speed of flow,            Excess of sediment load cannot be carried further,            Deposition,            Flocculation,            Lack of tides to remove materials,            Colonisation by vegetation, etc.</p>	7

Question	Answer	Marks
4(a)(i)	Constructive/divergent  1 mark	<b>1</b>
4(a)(ii)	X = convection currents  Y = direction of plate movement  2 @ 1 mark	<b>2</b>
4(a)(iii)	Hazards such as: lava; ash; volcanic bombs; (poisonous) fumes/gases  3 @ 1 mark  <b>Note:</b> Answers must be taken from Fig. 4.1	<b>3</b>
4(a)(iv)	Ideas such as: Money from/work in tourist industry (or example); Fertile soils/high yields of crops/good for farming; Scenic beauty; To study volcanoes; Geothermal power/renewable energy/hot water; Quarrying/mining/ extraction of minerals (or example – sulphur/diamonds, building materials), etc.  4 @ 1 marks	<b>4</b>

Question	Answer	Marks
4(b)(i)	<p>Ideas such as the earthquake at Kobe:  <u>Kobe EQ killed</u> fewer people/Port au Prince killed more people;  <u>Kobe EQ injured</u> fewer people/Port au Prince injured more people;  <u>Kobe EQ made</u> fewer people homeless/Port au Prince made more people homeless;            Kobe EQ caused more (financial) damage/Port au Prince EQ caused less (financial) damage</p> <p>Do not accept comparative statistics without description, however 'only' is acceptable.            e.g. XXX killed in Port au Prince but <u>only</u> YYY in Kobe.</p> <p style="text-align: right;">3 @ 1 mark</p> <p><b>Note:</b> Reference must be made to Kobe and/or Port au Prince (not MEDC/LEDC or 1st one and 2nd one)</p>	<b>3</b>
4(b)(ii)	<p>Ideas such as:            Variation in quality/cost of buildings/poorer quality buildings in LEDCs;            Variation in emergency services/rescue teams/health care/will be better in MEDCs;            depth of focus/shallow depth of focus more destructive;            time of day/if people are at work/in schools there is likely to be less deaths;            Variation in population density/if high there will be more impact;            Variation in amount of education/awareness about earthquake survival/evacuation plans/First Aid kits;            Variation in access to area/roads (for rescue services);            Variation in availability of international aid;            Variation in access to food/water;            Variation in ability to monitor/study Faultline movements            Impacts will depends on physical characteristics of location or e.g. impacts will be worse if settlements are built on former lake beds/sediment/on a steep slope;            There may be more impacts if an earthquake causes a tsunami/availability of tsunami warning/tsunami defences, etc.</p> <p style="text-align: right;">5 @ 1 mark or development</p> <p><b>Note:</b> must either directly refer to or imply variation</p>	<b>5</b>

Question	Answer	Marks
4(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which explain how an earthquake was caused.</p> <p>Triggered by volcanic eruption = L1 Plates move towards each other/past each other = L1 Subduction = L1</p> <p><u>Level 2</u> (4–6 marks) Uses named example.</p> <p>More developed or linked statements which explain how an earthquake was caused.</p> <p>Destructive/transform plate margin = L2 (Do <b>not</b> credit constructive boundary as L2 but credit 'boundary' idea as L1 if not credited elsewhere)</p> <p>(<b>Note:</b> Max 5 if no named or inappropriate example Country = 0 unless very small)</p> <p><u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements which explain how an earthquake was caused, including place specific information.</p> <p><u>Content Guide:</u> Answers are likely to refer to: Location on plate boundary (do not accept <u>constructive</u> margin) Plate movement, Friction, Build up of pressure, Pressure release/jolting, Shockwaves/vibrations, etc.</p> <p><u>Place specific reference is likely to consist of:</u> Locational details/dates/times, Names of plates, etc.</p>	7



Question	Answer	Marks
5(a)(i)	Chad  1 mark	<b>1</b>
5(a)(ii)	One mark for 2 correct plots  One mark for 3 lines  2 @ 1 mark	<b>2</b>
5(a)(iii)	Ideas such as: 0 to 1 index is used; It is a composite indicator/looks at different/many/3/all/the important measurements/aspects/factors; It incorporates information on life expectancy, income/GNI and education/years of schooling (MAX 2)  3 @ 1 mark	<b>3</b>
5(a)(iv)	Ideas such as: Variation in availability of/some parts have more resources or example; Variation in availability of/some parts have more energy supplies or example; Variation in availability of/some parts have more water supplies/rivers; Variation in ability to produce food/soil quality/some parts have more fertile soils; Variation in employment/some parts have more employment or example, e.g. industry, tourism, etc.; Variation in accessibility/roads/railways; Variation in access to education; Variation in access to health care; Whether areas are urban or rural; Coastal locations/proximity to ports/docks/trade; Variation in amount of government investment; Extremes of climate, e.g. desert areas tend to be less developed; Variation in terrain/mountain areas tend to be less developed; Civil wars, etc.  <b>Note:</b> 1 MAX 3 if comparison is between countries not within a country. 2 Do not accept 'lack of 'on its own as the question is looking for references to variation/differences between areas in the country.  4 @ 1 mark	<b>4</b>

Question	Answer	Marks
5(b)(i)	<p>Ideas such as:</p> <p><u>All</u> children will be able to attend school/rural areas are poor and many people cannot afford to send children to school/sending children to school is free of charge;</p> <p>There are not enough schools in rural areas/increases access to schools in rural areas;</p> <p>Education leads to development;</p> <p>Children become more educated/develop more skills/learn to read and write/improve literacy;</p> <p>Children will get better/paid jobs when they leave school;</p> <p>Education is a right for all children/reduces inequality/gives equal rights to children in all areas;</p> <p>Likely to reduce migration to urban areas;</p> <p>People will have money to spend on food/basic needs;</p> <p>Large youthful population/many children;</p> <p>More jobs will be created for teachers/builders, etc.</p> <p style="text-align: right;">3 @ 1 mark</p>	3
5(b)(ii)	<p>Candidates can choose any of the three plans. Marks to be awarded for ideas which explain why the plan will result in development:</p> <p>e.g. <i>Build a multi-purpose dam (Plan 2)</i>:</p> <p>Jobs are created (accepts examples as dev)/earn money;</p> <p>Water supplies will be increase;</p> <p>Reduction of water borne disease or example;</p> <p>Increasing food supplies/output from farms;</p> <p>More food will be exported;</p> <p>Electricity will be generated;</p> <p>Attracting manufacturing industry;</p> <p>Tourists will be attracted;</p> <p>Multiplier effect, etc.</p> <p>e.g. <i>Attract TNCs (Plan 3)</i>:</p> <p>Jobs are created (accepts examples as dev)/earn money;</p> <p>Development of transport links or examples;</p> <p>Development of specified infrastructure – electricity grid, sewage disposal, water supply;</p> <p>Foreign currency/money through taxes/money for government spending;</p> <p>Multiplier effect ;</p> <p>Easy access to electrical goods for local population</p> <p>e.g. <i>build tourist resorts (Plan 4)</i>:</p> <p>Jobs are created (accepts examples as dev)/earn money;</p> <p>Development of transport links or examples;</p> <p>Development of specified infrastructure – electricity grid, sewage disposal, water supply;</p> <p>Foreign currency/money through taxes/money for government spending;</p> <p>Multiplier effect;</p> <p>Cultural exchange;</p>	5

Question	Answer	Marks
5(b)(ii)	<p>Development of different resorts/different types of customer means more business.</p> <p><b>Note:</b></p> <ol style="list-style-type: none"><li>1 Reference to why the other plans have not been chosen is not relevant.</li><li>2 Reference to Plan 1 = 0 for all the answer</li><li>3 If no Plan number has been selected this may be identifiable from the text below. If this is not possibly the whole answer = 0</li><li>4 If more than one plan selected the best answer should be credited.</li></ol> <p style="text-align: right;">5 @ 1 mark or development</p>	

Question	Answer	Marks
5(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which describe how economic development is damaging the natural environment.</p> <p><u>Level 2</u> (4–6 marks) Uses named example. More developed statements which describe how economic development is damaging the natural environment.</p> <p>(<b>Note:</b> Max 5 if no named or inappropriate example) Countries are Max 5 unless they are very small.</p> <p><u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements, including some place references.</p> <p><u>Content Guide:</u> Any development should be describing damage to the natural environment not explaining the causes of it. However, this damage could result from to any economic development, e.g. manufacturing, tourism, extractive industry, farming, road building, logging, etc. and this does not need to be specified. Credit ideas as appropriate such as: Deforestation/loss of vegetation, Reduction of biodiversity, Extinction of species, Impacts on food chains Air pollution Water pollution Global problems, e.g. global warming, acid rain, etc.</p> <p><b>Note:</b> 1. Accept local or global impacts.</p> <p><u>Place specific reference is likely to consist of:</u> Locational details, Specific details of activities within the area Specific details of impacts, etc.</p>	7

Question	Answer	Marks
6(a)(i)	(Farming which) produces food for farmers own use/use of family/tribe 1 mark  <b>Note:</b> Do not penalise candidates for referring to selling the surplus providing they refer to output being used for family..	1
6(a)(ii)	On Fig. 6.1 All 3 correct = 2 marks 1/2 correct = 1 mark  2 @ 1 mark	2
6(a)(iii)	Ideas such as: Vegetables need much more (regular) attention; They can be protected from thieves/wild animals; They do not need to be close to the river (like the rice does)/rice grows on flood plain/rice needs more water/vegetables will not be flooded by the river; They don't need as much land/large fields; Vegetables are harvested/picked more regularly; The soil is well drained, etc.  3 @ 1 mark  <b>Note:</b> Comparison not needed – accept 'it/they' as 'vegetables'	3
6(a)(iv)	Ideas such as: It provides/there will no longer be a supply of firewood; It provides/there will no longer be a supply of building materials; It provides/no longer areas to hunt/gather fruit/berries/food from the woodland; It provides/the farm will lose the shelter from the wind/storms; Soil erosion/mudslides may occur/it prevents soil erosion; More run off leads to floods; Increased siltation reduced water supply for irrigation/leads to more regular flooding; etc.  4 @ 1 mark  <b>Note:</b> Answers must relate to people not the natural environment.	4
6(b)(i)	Ideas such as: <i>Building a well</i> will enable farmers to irrigate/water <u>crops</u> (more effectively); <i>Putting electric fences around fields</i> will prevent theft by people or trampling by animals/stop animals eating them; <i>Using land to graze goats</i> will provide manure/provide milk and meat/vary the diet of the farmer/increase food supplies, etc.  3 @ 1 mark	3

Question	Answer	Marks
6(b)(ii)	<p>Ideas such as:</p> <p>Use of fertilizers/manure;</p> <p>Pesticides/herbicides;</p> <p>Crop rotation/fallowing;</p> <p>GM crops,</p> <p>Better quality seeds/hybrid seeds (<u>or</u> example, e.g. IR8 rice);</p> <p>Selective breeding of livestock/vaccination of livestock;</p> <p>Use irrigation <u>or</u> example (e.g. Persian Wheel, sprinklers, build bunds, etc.);</p> <p>Terrace hillsides;</p> <p>Introduce machinery (<u>or</u> example, e.g. ploughs, harvesters);</p> <p>Land reform/consolidation of holdings;</p> <p>Greenhouses/glasshouses/cloches/covering crops with plastic;</p> <p>Nets to keep off birds/scarecrows</p> <p>Intercropping;</p> <p>Mulching</p> <p>Large scale growth of cash crops/plantations <u>or</u> example, e.g. sugar cane, oil palm;</p> <p>Education about improved techniques (<u>or</u> example);</p> <p>Farming cooperatives;</p> <p>Contour ploughing;</p> <p>Wind breaks;</p> <p>use natural predators to kill pests, etc.</p> <p style="text-align: right;">5 @ 1 mark or development</p>	5

Question	Answer	Marks
6(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which identify natural factors which have caused food shortages to occur.</p> <p>Little rainfall = L1</p> <p><u>Level 2</u> (4–6 marks) More developed statements which explain how natural factors have caused food shortages to occur</p> <p>(<b>Note:</b> Max 5 if no named or inappropriate example)</p> <p>Little rainfall so crops don't grow = L2</p> <p><u>Level 3</u> (7 marks) Comprehensive and accurate statements which explain how natural factors have caused food shortages to occur, including some place references.</p> <p><u>Content Guide:</u> Answers are likely to refer to: Drought, Floods, Soil infertility, Soil erosion, Pests (or example, e.g. locusts), plant disease; Example of natural disaster – e.g. tsunami, volcanic eruption, etc.</p> <p><u>Place specific reference is likely to consist of:</u> Locational details, Named places Specific details/statistics about natural events Specific plant diseases or pests</p> <p><b>Note:</b> Do not credit <b>identical</b> development points for more than one L2 idea (e.g. crops die).</p>	7