



Cambridge IGCSE™

DEVELOPMENT STUDIES

0453/01

Paper 1

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MARK SCHEME

Maximum Mark: 80

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.

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This document consists of **15** printed pages.

PUBLISHED**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.

Question	Answer	Marks	Guidance
1(a)(i)	Bangladesh	1	
1(a)(ii)	<p>Agricultural products grown do not produce enough <u>to support population</u></p> <p>Agricultural products grown are sent for export (cash crops) <u>so not enough to feed family / not used as food</u></p> <p>Agricultural products grown are not varied enough (to support the nutritional needs of the population)</p> <p>Any <u>negative</u> physical factor making it hard to grow enough agricultural products (e.g. <u>unsuitable</u> landscape / climate, natural disasters, climate change, etc.)</p> <p>Technology / Skills insufficiently developed / insufficient use of fertilisers, etc. (to grow enough agricultural products)</p> <p>Country may focus on other economic activities.</p>	2	<p>Don't grow enough / anything = ^</p> <p>Equipment alone = ^</p>
1(b)	<p>Credit development where appropriate, or four simple ideas</p> <p>Develop industries to supply the domestic market (to reduce imports of goods)</p> <p>Encourage the growth of export industries / minerals / cash crops (that will export <u>higher value</u> goods)</p> <p>Develop other industries such as tourism (to bring in foreign exchange)</p> <p>Devalue the currency (to make exports relatively cheaper)</p> <p>Import barriers, e.g. tariffs, quotas (to increase costs / reduce <u>volume</u> of imports)</p> <p>Joining trading blocs (to create more export opportunities)</p>	4	<p>Reduce imports / increase exports <u>alone</u> = ^</p> <p>Not improvements to infrastructure</p> <p>Watch for DEV mark coming before the simple idea</p>

Question	Answer	Marks	Guidance
1(c)(i)	Mozambique Bhutan	2	
1(c)(ii)	For a specific <u>large</u> project or example (e.g. improve education/health care) Rise in interest rates/debt grows if not paid off Rise/fall in oil prices New loans taken out to pay interest on the old ones Corruption/rulers misusing country's finances Global financial crises/pandemics War/conflict/natural disasters/climate change, etc. High dependent population	2	Emphasis should be on <u>large</u> amounts of debt Do not credit 'infrastructure' without a specific example
1c(iii)	Credit development where appropriate or three simple ideas Reduced building of schools and hospitals Reduced pay for teachers, doctors, etc./reduced work benefits Fewer workers hired Example of how quality of the service is reduced, e.g. strain on workforce, lack of medicines/educational resources, etc. Cost of accessing services increases/availability of services is reduced Government may ring-fence these areas (increase taxes or cut spending on other items, e.g. defence, transport, pensions)	3	

Question	Answer	Marks	Guidance
1(d)	<p>Level 1 (1 or 2 marks) – simple statements with basic points made.</p> <p>Reference may be made to the fact that the government can concentrate on the economy and improve people’s quality of life. Mention may also be made that because the government will have more money roads can be improved or schools could be built.</p> <p>There is little development of ideas but candidates will have shown a basic understanding of how debt relief benefits the people and the economy.</p> <p>Level 2 (3 or 4 marks) – a sound attempt with points being developed. The income gained from exports could be used for building better schools, which would increase literacy rates.</p> <p>The taxes received by the government can be used to build more local clinics, which would lead to a healthier population and increase productivity.</p> <p>Level 3 (5 or 6 marks) – a comprehensive attempt with points being well developed. For marks in Level 3, candidates would be expected to consider a few issues in depth rather than many different ideas that are only weakly developed. The wider impacts on development could be considered. The developing country will have less need to exploit their natural resources to pay off the debt so people won’t have to work in mines/dangerous conditions. This means their environment will be more pleasant and people’s health will improve.</p> <p>The developing country will have more money available for schools and clinics. Roads can be improved so people can get to work and find a wider range of jobs. People can travel more easily to access healthcare. Because parents can find work more easily, poverty is reduced so children will have food and parents can afford to send their children to school.</p>	6	<p>If reference is only to benefits for people, credit up to Level 2 (4 marks)</p> <p>To access Level 3, there should be reference to both the wider economy and people.</p>

Question	Answer	Marks	Guidance
2(a)(i)	It's indoors so the weather won't affect growth of the crops Reduces need for transport – so less waste of yield Nutrients/fertilisers/regular water provided in the system Pests can be more easily controlled Can grow <u>a lot</u> of crops in a small space/can grow on different levels Can grow crops which wouldn't otherwise grow in that area/can grow crops anywhere Crops grow more quickly Can grow multiple crops at the same time	3	Cheaper = 0 Land not needed / doesn't need a lot of land = 0 Reduce pests = ^
2(a)(ii)	Fresh food provided Know where it has been grown Wide variety of fruit and vegetables to choose from/improved diet Don't have to travel far It could be delivered Creates employment Opportunities for firms supplying the farm	2	Easier to obtain = 0 More food available = 0 Less shortage of food = 0
2(b)	Pesticides/Herbicides, etc. Fertilisers Irrigation Land reform Animal breeding/Plant breeding/HYV/Green Revolution GM crops Mechanisation Greenhouses/Polytunnels Crop Rotation Better training for farmers/encouraging people to be farmers	2	

Question	Answer	Marks	Guidance
2(c)	<p>Credit development <u>once</u> per simple idea or four simple ideas</p> <p>Increases yield / more variety of food / better quality food (reduces cost of imports / reduce hunger / improves diet) A growing population (so have to increase yield of food crops / provide staple foods / food security) Traditional subsistence farming cannot produce large quantities (for export / meet the nutritional needs of urban dwellers) Governments need the <u>income</u> from cash crops (to pay for imports of other food products / pay for infrastructure projects) Growth in commercial farming / cash crops will increase employment (and help people to meet their basic needs) Easier to control pests Use of seeds that are resistant to climate change</p>	4	<p>Faster = ^ Cheaper = ^</p> <p>General impact on environment = 0 but credit any specific relevant method (e.g. reduced ploughing which helps limit soil erosion)</p>
2(d)(i)	Asia	1	
2(d)(ii)	<p>Only buy Fairtrade products Only buy organic meat Boycott unsustainable products / campaigns that educate others Ask their governments to pass laws banning the sale of cloned animals Only buy free range meat, eggs and dairy products <u>Reducing</u> consumption of meat</p>	2	<p>Do not credit issues around meat processing or packaging of products.</p> <p>Not 'going vegetarian', etc.</p>

Question	Answer	Marks	Guidance
2(e)	<p>Level 1 (1 or 2 marks) – simple statements with basic points made.</p> <p>Reference may be made to the fact that organic farming uses fewer pesticides so the impact on the environment is less. Mention may also be made that organic farming does not use artificial fertilisers so the impact on rivers is less. Or that organic farming is usually small scale and doesn't usually use heavy machinery which can damage the soil.</p> <p>There is little development of ideas but candidates will have shown a basic understanding of why organic farming is a sustainable development.</p> <p>Level 2 (3 or 4 marks) – a sound attempt with points being developed. Organic farming uses fewer pesticides, so the impact on insects and bees is less. This means that the insects and bees can continue to pollinate.</p> <p>Organic farming uses natural forms of fertiliser so the artificial fertilisers are not washed into rivers and aquatic life is not destroyed.</p> <p>Level 3 (5 or 6 marks) – a comprehensive attempt with points being well developed. For marks in Level 3, candidates would be expected to consider a few issues in depth rather than many different ideas that are only weakly developed. The wider impacts on future generations could be considered.</p> <p>Organic farming uses natural forms of fertiliser so toxic chemicals are not washed into rivers with surface run off and the water table is not contaminated. This means that aquatic life in the surrounding area remains healthy and the local ecosystem is maintained for future generations.</p> <p>Organic farming uses methods to improve the soil, such as crop rotation, inter-cropping, cover crops, organic fertilisers and minimum tillage. These encourage soil fauna and flora, improving soil formation and structure and creating more stable systems. This means that soil erosion is less likely in the future and helps to ensure that farming can continue on the land in the future.</p>	6	

Question	Answer	Marks	Guidance
3(a)(i)	Cheaper for companies / more cost effective Children don't complain / more obedient Parents need the money to feed large families / parents can't get jobs / few jobs for parents	3	
3(a)(ii)	Allow appropriate development of up to 2 marks Companies are very powerful / They contribute to the economy Fears the company would move to another country or close down (job losses) Government corruption, e.g. officials receiving benefits from the companies Difficult to police / not enough enforcement personnel / inspectors Poverty will increase (children are often the main breadwinners) Doesn't get reported (families depend on child incomes) Lack of political will to tackle the problem / lack of labour laws	4	Loss of output = ^
3(b)(i)	Someone who moves / travels to another area to improve their standard of living / find work	1	Not migrates
3(b)(ii)	Sub Saharan Africa	1	
3(b)(iii)	Comparison can be implicit Differences in wage levels and standards of living between countries Discrimination can lead to differences in wage levels / migrants may not get jobs Migrants' skills are different / Unskilled migrants will be paid less than skilled workers Some migrants may not have families / have families with them / different level of need / forget old family Different numbers of migrants in different regions Differences in exchange rates Difficulties / cost of sending remittances	3	

Question	Answer	Marks	Guidance
3(c)	<p>Usually Outsourced: Call centres Sales Computer programming</p> <p>Usually Remains: Head office Research</p>	2	List rule applies
3(d)	<p>Level 1 (1 or 2 marks) – simple statements with basic points made.</p> <p>Reference may be made to the fact that multinational companies provide employment to the local companies and an income. Mention may also be made that multinational companies may pay more for the finished goods than other local companies or that local companies can take on more workers.</p> <p>There is little development of ideas but candidates will have shown a basic understanding of how multinational companies can benefit local communities.</p> <p>Level 2 (3 or 4 marks) – a sound attempt with points being developed. A regular supply of work means a regular income and parents can afford to send their children to school.</p> <p>More money in the local community means that there is more money to spend in other local shops and services.</p> <p>Level 3 (5 or 6 marks) – a comprehensive attempt with points being well developed. For marks in Level 3, candidates would be expected to consider a few issues in depth rather than many different ideas that are only weakly developed. The wider, long term impacts on the local community could be considered.</p>	6	

Question	Answer	Marks	Guidance
3(d)	<p>A regular supply of work means regular money so that families can make plans for their future and children will go to school regularly. The children will get better jobs in the future that attract more pay and escape the cycle of poverty.</p> <p>Skill transfers can take place. Local companies utilise new skills and techniques that they can use in products they produce for the local market giving consumers greater choice and helping to sustain the future of their businesses.</p> <p>More work for local companies can lead to more local companies starting up, supplying goods and services to the local suppliers to the multinationals. The increased number of people working and living in the area could lead to better roads and more schools and clinics being built for the local community.</p>		

Question	Answer	Marks	Guidance
4(a)(i)	<p>1 mark for 1 or 2 correct answers 2 marks for 3 or 4 correct answers</p> <p>Factories and cars burn fossil fuels which emit oxides of sulfur and nitrogen. Fumes combine with the water droplets in the atmosphere. When the rain falls, it becomes dilute nitric and sulfuric acid.</p>	2	
4(a)(ii)	<p>Allow development or four simple points</p> <p>Lakes / rivers / oceans become acidic (and fish die) (local people lose a source of food) Trees often lose their leaves (scenic beauty is lost / animals lose their habitats / animals forced to migrate or adapt or die) (tourism decreases / loss of biodiversity) Acids leech the nutrients from the soil / soil becomes acidic / the PH of the soil is changed (reducing its fertility) (crops die / trees die / land becomes unsuitable for agriculture) (and there is a lower yield for farmers) Acid weathers stonework / buildings and statues crumbles (and tourism suffers / tourists stop visiting) Toxic metals are dissolved out of soils (and enter water supplies) (and local people are at risk of poison)</p> <p>2 + 2</p>	4	<p>Diseases / bronchitis / asthma / rashes = 0 Dams / reservoirs treated = 0 Local people die from drinking the water = 0</p> <p>Allow any term that suggests weathering (e.g. dissolves, rots, degrades, etc.) but NOT destroys.</p> <p>Allow a point given as a development on the MS as a simple point where relevant.</p>

Question	Answer	Marks	Guidance
4(a)(iii)	Use of scrubbers on factory chimneys Use renewable energies/ burn fewer/less fossils fuels/ reduce the use of diesel/ petrol fuel More fuel-efficient cars/ electric cars/ catalytic converters Reduce car usage/ cycle more/ car share/ use of public transport, etc.	2	
4(b)(i)	The <u>higher</u> the GNI the <u>greater</u> the impact the country has on the environment and human health. A positive relationship.	1	
4(b)(ii)	Countries with higher GNI: (have higher GDP per person) more money to spend on electrical goods that use a lot of energy More money to spend on cars/ increased use of fossil fuels Use more land for construction	1	
4(b)(iii)	Expected/ mean years of schooling (after 2010); literacy rate/ school enrolment (before 2010) Life expectancy (unchanged) GNI <u>per person</u> (after 2010); GNP <u>per person</u> (before 2010)	2	
4(c)	Governments might not be able to afford cost/ time to gather information about these indicators Governments might not want information about these indicators to be made public People might be afraid to talk about their experiences Media reporting might be censored Subjective/ cannot be quantified/ different <u>interpretations</u> in different countries/ fluid concept	2	Different in different countries = 0 Depends on type of government = 0

Question	Answer	Marks	Guidance
4(d)	<p>Level 1 (1 or 2 marks) – simple statements with basic points made. Reference may be made to the fact that corrupt officials can demand money from people on a daily basis, leaving people with less money to spend on their basic necessities or making people live in fear. Mention may also be made that Government ministers can use tax revenue to buy cars and houses instead of using it to build schools and hospitals.</p> <p>There is little development of ideas but candidates will have shown a basic understanding of how corruption and mismanagement of resources impact on local people.</p> <p>Level 2 (3 or 4 marks) – a sound attempt with points being developed. Government ministers may give important infrastructure projects to their friends, who may use substandard materials in construction. Bridges and roads may collapse and put people’s lives at risk.</p> <p>Dictators can use the cash from tax revenue to buy cars, houses and invest overseas rather than spend it on infrastructure and public services for the people.</p> <p>People in local government may take bribes which often means that people cannot get anything done, for example build their houses, unless they pay the bribes.</p> <p>Police may take bribes which means that people end up in prison if they can’t afford to pay them. If people are in prison they cannot work and earn money.</p>	6	

Question	Answer	Marks	Guidance
4(d)	<p>Level 3 (5 or 6 marks) – a comprehensive attempt with points being well developed. For marks in Level 3, candidates would be expected to consider a few issues in depth rather than many different ideas that are only weakly developed. The wider impact of corruption and mismanagement of resources on the local people could be considered.</p> <p>People in charge of large infrastructure projects may use some or all of the money to buy houses and cars or new lives. Local people may not get paid for the work they have done, or lose their jobs. This means they have less money to spend on basic necessities and may have to leave their homes to find work. Poverty increases in the local community.</p> <p>Local people may not be able to send their children to a school which offers good education because the teachers haven't been paid. This means that children do not receive an education, or have to go to a school with lower standards, making it very difficult for them to get the education they need for a bright future and escape the cycle of poverty.</p>		