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**GEOGRAPHY**

**0460/12**

Paper 1

**March 2017**

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 will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the March 2017 series for most Cambridge IGCSE<sup>®</sup>, Cambridge International A and AS Level components and some Cambridge O Level components.

**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 is 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(b)(ii)	<p>Ideas such as:  pull of paid employment/push of lack of paid employment in home country/lots of jobs/lack of jobs in home country;  higher wages in Qatar/to better themselves economically/to get more money;  people want to improve their quality of life/standard of living/feed their families/send remittances home;  better health care in Qatar/poor health care in home countries;  better education for their children in Qatar/poor education in home countries;  expectation of better water supply/sanitation/electricity than in home country/to escape drought;  to escape political/religious persecution/war in their home countries;  to escape flooding/cyclone etc.</p> <p style="text-align: right;">5 @ 1 mark or development</p>	<b>5</b>
1(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks)  Statements including limited detail which explain why rapid natural population growth is taking place.</p> <p><u>Level 2</u> (4–6 marks)  Uses named example.  More developed statements which explain why rapid natural population growth is taking place.</p> <p>(Note: Max 5 if no named or inappropriate example)</p> <p><u>Level 3</u> (7 marks)  Uses named example.  Comprehensive and accurate statements including some place specific reference.</p> <p><u>Content Guide:</u>  Answers are likely to refer to:  birth rates remain high  reduction in death rates/reasons for reduction  contraception – lack of availability  contraception – lack of affordability  contraception – lack of education about it  traditional attitudes  impact of religion  infant mortality rates  lack of government support for old age;  lack of clear government policy etc.</p> <p><u>Place specific reference is likely to consist of:</u>  Named parts of the chosen country,  Population data etc.</p>	<b>7</b>

Question	Answer	Marks
2(a)(i)	Inner city	<b>1</b>
2(a)(ii)	Poor quality housing; overcrowding; high crime rates; drug abuse  2 @ 1 mark	<b>2</b>
2(a)(iii)	Ideas such as : attached to each other/terraced; all have balconies; tall/5 stories; tightly packed together/dense/congested/overcrowded/not much space etc.; narrow etc.  3 @ 1 mark	<b>3</b>
2(b)(i)	Porto has poorest quality housing (no mark) as: a greater percentage is run down; a greater percentage needs major repair; a greater percentage lacks water supplies; a greater percentage is without a bath or shower OR Lisbon has poorest quality housing (no mark) as: a greater percentage is overcrowded  Note: Accept comparative statistics as alternative to written comparison but no reserve  3 @ 1 mark	<b>3</b>
2(b)(ii)	Ideas such as; lack of better quality/good quality housing; many people have moved to the cities; little investment from authorities in housing schemes; demand for housing exceeds supply; they are cheap/many people cannot afford better housing/are jobless/are low paid/better quality houses are too expensive/poverty; many houses are old/in need of renovation; lack of space to build etc.  4 @ 1 mark	<b>4</b>

Question	Answer	Marks
2(b)(iii)	<p>Ideas such as:            building of housing estates/houses in suburbs;            building of high rise flats;            site and services schemes;            self-help schemes;            provide tools/training/building materials;            installation of water pipes;            installation of electricity grid;            improvement grants/low interest loans etc.</p> <p>Note: Answer can relate to housing improvements in urban areas in LEDCs or MEDCs.</p> <p style="text-align: right;">5 @ 1 mark or development</p>	<b>5</b>
2(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks)            Statements including limited detail which describe a change in land use and/or its impacts</p> <p><u>Level 2</u> (4–6 marks)            Uses named example.</p> <p>More developed statements which describe a change in land use or explain its impacts  <b>(Note: Max 5 if no named or inappropriate example)</b></p> <p><u>Level 3</u> (7 marks)            Uses named example.            Comprehensive and accurate statements, with some place specific reference.</p> <p><u>Content Guide:</u>            Answers are likely to refer to a change such as:            A new road,            A new factory/industrial estate,            Construction of new housing,            Construction of a new shopping mall,            Construction of a new service/hospital/school etc.,</p> <p>Accept positive and negative impacts on either people or the natural environment.</p> <p><u>Place specific reference is likely to consist of:</u>            Locational details/names areas within the urban area,            Specific details of the scheme,            Named businesses etc.</p>	<b>7</b>

Question	Answer	Marks
3(a)(i)	An area of land drained by a river	<b>1</b>
3(a)(ii)	More lower/flatter land at X; More tributaries have joined by X; The river is larger/more discharge at X  2 @ 1 mark	<b>2</b>
3(a)(iii)	Ideas such as: drowning; damage to/need to repair homes/buildings; damage to/need to repair specific building (e.g. school, hospital etc.); damage to/need to repair roads/railways/communications; businesses/factories/shops damaged; loss of production/people without work; damage to possessions/cars; damage to/destruction of crops/food supply/famine; loss of livestock; diseases; contamination of water; loss of electricity supply etc.  3 @ 1 mark	<b>3</b>
3(a)(iv)	Ideas such as: warning usually given before flooding ; people have time to evacuate; people are able to take precautions or example; soils are fertile/high yields can be produced/they provide good grassland for grazing; irrigation; rivers provide a water supply; food supply/fishing; rivers can be used for transport; flooding is infrequent; their jobs are nearby; flooding can be prevented; emotional attachment/lived there all their lives; near friends/family; population pressure/high population density; flat land for building/agriculture/roads etc.  4 @ 1 mark	<b>4</b>

Question	Answer	Marks
3(b)(i)	<p>Ideas such as:            Bend/curved shape;            variation in speed of flow across channel/faster on outside/slower on inside;            variation of depth across channel/deeper on outside/shallower on inside;            river cliff/steep bank/undercutting;            slip off slope/point bar/deposition of pebbles/deposited material etc.</p> <p style="text-align: right;">3 @ 1 mark</p>	<b>3</b>
3(b)(ii)	<p>Ideas such as:            there will be areas of both fast and slow flowing water/different speeds of flow within channel/river;            fast flow on outer bend;            where water is deeper;            helicoidal flow (dev)            so erosion/undercutting occurs on outer bend;            by hydraulic action/abrasion (dev)            slow flow on inner bend;            where there is more friction;            results in deposition/river unable to carry load (dev) etc.</p> <p style="text-align: right;">5 @ 1 mark or development</p>	<b>5</b>

Question	Answer	Marks
3(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which describe what has been done to reduce the risk of flooding.</p> <p><u>Level 2</u> (4–6 marks) Uses named example.  More developed statements which describe what has been done to reduce the risk of flooding.  (Note: Max 5 if no named or inappropriate example)</p> <p><u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate statements including some place specific reference.</p> <p><u>Content Guide:</u> Answers are likely to refer to: Dams/reservoirs Levees Overflow/flood relief channels Dredging, Afforestation, Warnings, Evacuation plan, Flood gates etc.</p> <p><u>Place specific reference is likely to consist of:</u> Locational details, named places along the river or within its basin, specific details of schemes etc.</p>	7

Question	Answer	Marks
4(a)(i)	The shaking of the ground caused by sudden movement of the Earth's crust	<b>1</b>
4(a)(ii)	X = epicentre Y = focus  2 @ 1 mark	<b>2</b>
4(a)(iii)	Ideas such as: death from falling buildings/crushing; damage to/need to repair homes/buildings/people are homeless; damage to/need to repair specific building (e.g. school, hospital etc.); damage to/need to repair roads/railways/communications/bridges; businesses/factories/shops damaged; fire; loss of water/electricity/gas supply; loss of production/less economic activity (or example e.g. tourism)/loss of jobs; damage to possessions/cars; disease; could cause a tsunami which would cause flooding etc.  3 @ 1 mark	<b>3</b>
4(a)(iv)	Strategies such as: building 'earthquake proof'/stronger buildings; build lower buildings; emergency/evacuation planning; earthquake drills; education about what to do in an earthquake; do not build public buildings on fault lines etc. lubrication of fault lines; tsunami warning system etc.  1 mark for each simple statement identifying a strategy and a second mark for an explanation – E.g. 1. build earthquake proof buildings (1) with pyramid shaped so that they do not easily collapse (2). E.g. 2 display posters on walls in schools (1) so that students will learn what to do if an earthquake occurs (2)  4 @ 1 mark	<b>4</b>
4(b)(i)	Ideas such as: in lines; (mainly) along/near plate boundaries; A few in middle of plates; (Pacific) Ring of Fire/West coast of Americas/Mediterranean/south east Asia/around Pacific (MAX 2) 3 or more correct countries (MAX 1) etc.  3 @ 1 mark	<b>3</b>

Question	Answer	Marks
4(b)(ii)	<p>Ideas such as:  the earth's crust is divided into a series of plates/there are plate boundaries;  plate boundaries are lines of weakness/centre of plates are more solid/tectonic activity occurs at plate boundaries;  plates move relative to each other/in different directions/subduction occurs;  plates get stuck/friction;  pressure build up;  pressure release/plates jerk apart;  vibrations cause seismic waves etc.</p> <p style="text-align: right;">5 @ 1 mark or development</p>	<b>5</b>
4(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks)  Statements including limited detail which explain the cause of a volcanic eruption.</p> <p><u>Level 2</u> (4–6 marks)  Uses named example.  More developed statements which explain the cause of a volcanic eruption.  (Note: Max 5 if no named or inappropriate example)</p> <p><u>Level 3</u> (7 marks)  Comprehensive and accurate statements including some place specific reference.</p> <p><u>Content Guide:</u>  Answers are likely to refer to:  Plate movement  subduction  creation of magma  build-up of pressure,  magma release etc.</p> <p><u>Place specific reference is likely to consist of:</u>  Locational details,  named plates,  date of eruption etc.</p>	<b>7</b>

<b>Question</b>	<b>Answer</b>	<b>Marks</b>
5(a)(i)	Shading on Fig. 8B	<b>1</b>
5(a)(ii)	A domestic tourist is from the same country an international tourist is from another country  2 @ 1 mark	<b>2</b>
5(a)(iii)	Uttar Pradesh  Maharashtra/West Bengal/Rajasthan  Tamil Nadu  3 @ 1 mark	<b>3</b>
5(a)(iv)	Ideas such as: it attracts foreign exchange/money brought in/more (tax) income/increases economy; improvement of airports; improvement of roads/area made more accessible/better transport links; electricity supplies provided; piped/running water provided; hospitals/health care improved; education/language tuition will need to be provided etc.  4 @ 1 mark	<b>4</b>
5(b)(i)	Ideas such as: Sandy/flat beach/white sand; Clear/calm/shallow/blue/clean sea/water; tropical vegetation/palm trees; clear/blue skies/sunshine etc.  3 @ 1 mark	<b>3</b>
5(b)(ii)	Ideas such as: tourists are attracted by historical buildings; which they cannot see in areas where they live (dev); such as castles/palaces/cathedrals/temples /monuments/statues; museums/art galleries; malls/shops; culture/cultural buildings may attract tourists; restaurants/bars/discos etc. will be a tourist attraction; hotels/resort complexes may be an attraction; theme parks; harbours; specific reference to tall/unique buildings etc.  5 @ 1 mark or development	<b>5</b>

Question	Answer	Marks
5(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which describe the problems caused by tourism for local people and/or natural environment.</p> <p><u>Level 2</u> (4–6 marks) Uses named example.  More developed statements which describe the problems caused by tourism for local people and/or natural environment.</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 describe the problems caused by tourism for local people and natural environment, including some place specific reference.</p> <p><u>Content Guide:</u></p> <p>Answers are likely to refer to problems for people such as: Noise Seasonal employment Exploitation Impacts on cultures Litter etc.</p> <p>And impacts on natural environment such as on; Flora/vegetation; Fauna/wildlife, Ecosystems/Food chains; rivers/streams; atmosphere etc.</p> <p><u>Place specific reference is likely to consist of:</u> Specific details of impacts/species, Locational details/named settlements within area chosen etc.</p>	7

Question	Answer	Marks
6(a)(i)	19/20%	<b>1</b>
6(a)(ii)	Primary Quaternary  2 @ 1 mark	<b>2</b>
6(a)(iii)	Research worker for a firm making computer software = Quaternary Workers harvesting tea on a plantation = Primary Worker on the production line in a factory making jam = Secondary  3 @ 1 mark	<b>3</b>
6(a)(iv)	Ideas such as: they can make large amounts of profit/foreign exchange/money; they provide information technology services/support for other businesses; many people have the skills to be employed in these industries; investment in research and development/research and development allows other businesses to improve; it enables innovation to take place/new inventions etc.  4 @ 1 mark	<b>4</b>
6(b)(i)	Jobs such as: Pilot; air crew; baggage handlers; check in staff; restaurant workers; tour company workers; taxi drivers/bus drivers; maintenance workers; air traffic control; security staff/customs officers; builders/people who lay tarmac etc.  3 @ 1 mark	<b>3</b>
6(b)(ii)	Ideas such as: loss of natural vegetation/deforestation; loss of habitat; threat to species (dev); impact on ecosystems/food chains; noise scares birds/animals; atmospheric pollution; increase in carbon dioxide; increases global temperature/enhanced greenhouse effect; melting of ice caps; increase in sea levels; flooding of coastal lowlands; (tarmac) increases flood risk etc.  5 @ 1 mark or development	<b>5</b>

Question	Answer	Marks
6(c)	<p>Levels marking</p> <p><u>Level 1</u> (1–3 marks) Statements including limited detail which describe how threats to the natural environment from chosen economic activity are being managed.</p> <p><u>Level 2</u> (4–6 marks) Uses named example.</p> <p>More developed statements which describe how threats to the natural environment from chosen economic activity are being managed.</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, including some place specific reference.</p> <p><u>Content Guide:</u> Answers should refer to appropriate forms of management of the activity chosen, ranging from small scale (e.g. fencing of vulnerable areas of sand dunes to protect them from trampling) to large scale (e.g. creation of National Parks). Answers can relate to any activity such as: Agriculture Tourism Manufacturing industry Generation of energy Tourism Quarrying Fishing etc.</p> <p><u>Place specific reference is likely to consist of:</u> Locational details; Names of places/species within chosen area Specific details of management of area affected</p>	7