GEOGRAPHY	**0460/11**
Paper 1	**May/June 2018**
MARK SCHEME	
Maximum Mark: 75	

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.

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This document consists of **16** 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.

Question	Answer	Marks
1(a)(i)	The number of births <u>per 1000 per year</u>	**1**
1(a)(ii)	Peru….Argentina…..Brazil…..Chile All 4 in correct order = 2 marks 2 or 3 in correct order = 1 mark 2 marks	**2**
1(a)(iii)	18.3–6 1 mark 12.3 (or 18.3–6.0) – 2.5 1 mark 9.8 (per 1000) 1 mark 3 @ 1 mark	**3**
1(a)(iv)	Ideas such as: Variation in birth rates/some countries have high birth rates/more people are born/have more children; Variation in death rates/some countries have high death rates/more people die; Some countries will have more immigration than emigration/more people move in; Some countries will have more emigration than immigration/more people move out; so net migration varies/could be positive or negative etc. 1 @ 1 mark Note: Not reasons for high birth rates or reasons for migration. Based on Figure 1.1.	**4**
1(b)(i)	Ideas such as: There will be <u>large amounts</u> of immigration/attracts <u>large amounts</u> of migrants; United States offers lots of pulls/attractions to immigrants; E.g. employment, political freedom etc. (MAX 2); Relatively small amounts of emigration; Net migration is positive/more people come into the USA than leave; <u>Immigrant communities</u> may have high birth rates; Low death rates or reasons for low death rate/long life expectancy; 3 @ 1 mark	**3**

Question	Answer	Marks
1(b)(ii)	Ideas such as in many countries in Africa there are: high birth rates/more births; poor access to contraceptives/cannot afford contraceptives; lack of education about birth control; some religions are against contraception; little education about adverse impacts of large families; dependence on agriculture/children work on farms; high IMR/to ensure some children survive; traditional attitudes encourage large families/to carry on family name/polygamy; to look after parents when they are old; many women don't have careers/role of women is traditional; children work for money form early age; children collect water, wood, look after siblings; decreasing death rates; improving health care; longer life expectancy; setting up care structure for old (or examples) pension schemes being set; abortions not available; lack of government population policy; lack of education for women etc. 1 @ 1 mark or development	

Question	Answer	Marks
1(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe the problems caused by overpopulation. Level 2 (4–6 marks) Uses named example. More developed statements which describe and explain the problems caused by overpopulation. (**Note: Max 5 if no named or inappropriate example**) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements which describe and explain the problems caused by overpopulation including some place specific reference. Content Guide: Answers are likely to refer to: • Employment • Food supply • Provision of health care • Provision of housing/shelter • Water supply • Sanitation • Provision of education etc. Place specific reference is likely to consist of: Named parts of the chosen country, Population data etc.	7

Question	Answer	Marks
2(a)(i)	Border of city and countryside/the edge of the city/green belt/outskirts of the city/boundary of the city/where the city ends/where the countryside starts/boundary of the city	1
2(a)(ii)	Difference X is likely to be: Older; Higher density; Terraced housing compared with detached/more flats and apartments; Lower cost; Less likely to have a garden/drive; Note: Needs to compare. Must state X or Y. 2 @ 1 mark	2

Question	Answer	Marks
2(a)(iii)	Ideas such as: Grew outwards/grown into rural areas/towards Stittsville or Alta Vista; Grew to south/east/west or grew to south/east/west of river; Most growth from 1985 onwards; Infilling occurred in 1985; Some recent growth past green belt; 5km across by 1906 but 25 km across by 1985 (6× increase) <u>Small amount</u> of growth north of the river etc. 3 @ 1 mark	3
2(a)(iv)	Problems such as: Lack of open space/green land/playing fields/pressure on greenbelt land; Traffic problems/traffic congestion; Pressure on public transport/public transport is overcrowded; Pressure on education/schools; Pressure on healthcare/hospitals; Air pollution/noise/water pollution/visual pollution; Deforestation/destruction of vegetation; Impact on ecosystems/reduced biodiversity; Increased risk of flooding; Animals killed; Loss of habitat; Loss of farmland/reduced food production 4 @ 1 mark	4
2(b)(i)	Earnings – higher in Stittsville Housing – more detached/less terraced/less high rise in Stittsville Employment – more people employed/less unemployment in Stittsville; Note: Needs to compare. 3 @ 1 mark	3

Question	Answer	Marks
2(b)(ii)	Ideas such as: Developments in transport/improvement in road network People can commute daily to work/increased car ownership; Rural urban fringe is quieter/less noisy/calmer/more peaceful/more peaceful; Less dangers from traffic/less traffic congestion; Rural urban fringe is safer/has less crime; So there are less risks when bringing up their families; Areas near centre are overcrowded/more spacious in rural urban fringe; lower cost land in rural urban fringe; less air pollution in rural urban fringe/fresh air; elderly move away from central areas when they retire; more space for housing; access to countryside for recreation or example/visual appeal; more modern housing/newer housing; larger housing; people working from home; 5 @ 1 mark or development	**5**
2(c)	Levels marking <u>Level 1</u> (1–3 marks) Statements including limited detail which describe the characteristics of the CBD <u>Level 2</u> (4–6 marks) Uses named example. Statements which describe and explain the characteristics of the CBD (**Note:** Max 5 if no named or inappropriate example) <u>Level 3</u> (7 marks) Uses named example. Comprehensive and accurate which describe and explains the characteristics of the CBD with some place specific reference. <u>Content Guide:</u> Answers are likely to refer to ideas such as: Density of land use; Types of services; Order of services, Frequency of use, Sphere of influence, Order of services; Accessibility etc., <u>Place specific reference is likely to consist of:</u> Locational details, Specific details of the services, Named businesses etc.	**7**

Question	Answer	Marks
3(a)(i)	Shaking of the ground caused by plate movement	1
3(a)(ii)	Buildings/flats/apartments damaged/collapse; Roads damaged/collapse/transport disrupted; 2 @ 1 mark	2
3(a)(iii)	It is on a plate boundary; Plates move alongside each other; conservative plate boundary/transform plate boundary (RESERVE MARK) Friction occurs/the plates get stuck; Pressure builds up; Pressure release/sudden jerk/friction released; Vibrations transmitted to surface etc. Note: MAX 2 if no reference to sideways movement 3 @ 1 mark	3
3(b)(i)	Ideas such as: Differences in magnitude/intensity/Richter Scale measure; Closeness to capital city/large areas of population/high population density; <u>Depth</u> of focus; aftershocks; on land or at sea/whether they will cause tsunamis; how well prepared people are/evacuation routes Note: no need to compare 3 @ 1 mark	3
3(b)(ii)	Ideas such as: Poorer quality of buildings/infrastructure; Not built using 'earthquake proofing'; Examples of 'earthquake proofing' (MAX 2); Not likely to have planned evacuation procedures/routes; And education re. precautions/about earthquakes; Such as drills; Poorer level of medical care; Lack finance to rebuild; Rescue teams will be poorly prepared/lack equipment/will have to wait for international aid; Poor quality roads for rescue; Inability to cope with after effects – e.g. lack of food, water etc. 4 @ 1 mark	4

Question	Answer	Marks
3(b)(iii)	Ideas such as: Work in the area; Their children are being educated in the area; They have lived there for many years/they were born there; They do not want to leave friends and family; It would be too expensive to move; They would not be able to sell their houses; Population pressure/there is nowhere else to go; They don't happen very often; People are prepared to take the risk; They have faith in precautions; They are unaware of the risk 5 @ 1 mark or development	**5**
3(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which explain the causes of a volcanic eruption. Level 2 (4–6 marks) Uses named example. More developed statements which explain the causes of a volcanic eruption. (Note: Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements including some place specific reference. Content Guide: Answers are likely to refer to: Convection currents Plate boundary Relative movement of plates subduction destruction/melting of crust pressure build up etc. Place specific reference is likely to consist of: Locational details, named plates specific details of eruption etc.	**7**

Question	Answer	Marks
4(a)(i)	Thermometers	**1**

Question	Answer	Marks
4(a)(ii)	Maximum and minimum temperature; (Relative) humidity 2 @ 1 mark	**2**
4(a)(iii)	Ideas such as it is: made of wood; painted white; on legs/stilts/1.25 metres above ground level; had louvres/vents/air can pass through/openings; double insulated; has a door; has a roof; 3 @ 1 mark	**3**
4(a)(iv)	Issues such as: Shelter from trees/vegetation/in the open; Proximity of buildings; Slope of land; Surface material/concrete or grass; Security etc. Note: No need to compare 4 @ 1 mark	**4**
4(b)(i)	Ideas such as the cloud in Figure 4.3: thicker; lower; completely covers sky but 4.4 only partial/more cloud cover; more likely to bring rain; 4.3 is cumulonimbus/strato-cumulus/stratus but 4.4 is cirrus; Darker/grey rather than white Note: Must compare 3 @ 1 mark	**3**
4(b)(ii)	Ideas such as: Near Equator air is rising at deserts it is descending at the desert/there is more convectional rainfall at the Equator; Low pressure at Equator/higher pressure at deserts; <u>Large amounts</u> of evaporation at Equator/less at deserts; <u>Large amounts</u> of transpiration at Equator/less at deserts; Deserts are more distant from water bodies; Winds to deserts are <u>more likely</u> to have blown over large areas of land etc. Note: Needs to compare but MAX 3 if no comparison. If the answer does not compare, assume Equatorial. 5 @ 1 mark or development	**5**

Question	Answer	Marks
4(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe impacts of deforestation on the global natural environment. Level 2 (4–6 marks) Uses named example. More developed statements which describe impacts of deforestation on the global natural environment (Note: Max 5 if no named or inappropriate example) Level 3 (7 marks) Comprehensive and accurate statements, including specific details. Content Guide: Answers are likely to refer to: Impact on patterns of rainfall/drought; Impact on global temperatures/global warming Reduction in oxygen Increase in carbon dioxide levels Greenhouse effect Melting of ice sheets, Rising sea levels; Destruction of environments in polar areas or other parts of the world; Extinction of species in other parts of the world Place specific reference is likely to consist of: Named places affected, named species, specific details of impacts etc.	**7**

Question	Answer	Marks
5(a)(i)	Circle on Fig.5.1	**1**
5(a)(ii)	There is a <u>positive</u> relationship/say what the relationship is; However, it is not perfect/they are anomalies/weak/not a straight line 2 @ 1 mark	**2**
5(a)(iii)	Ideas such as: (With a higher GNP) more money can be spent on education/can afford to send children to school/more schools built/more teachers/more adult education; Education is compulsory in most countries with high GNP; So skills are learned/people become more qualified; People are more productive/can earn more money; Farming becomes less important so children can attend school; Better healthcare so children can attend school; Less time spent collecting wood and water so children can attend school; 3 @ 1 mark	**3**
5(a)(iv)	Ideas such as: (The percentage of working population in each sector) can be compared with other countries; (The change in percentage of working population in each sector) can be compared over time; Primary sector is smaller as a country becomes more developed; Secondary sector grows as country becomes developed; Secondary sector decreases as it becomes even more developed; Tertiary sector grows as a country becomes more developed; Quaternary sector grows when countries have very high GNP etc. 4 @ 1 mark	**4**
5(b)(i)	Ideas such: Variations are relatively small/goes between 0.806–0.889; Areas with the high HDI are La Pampa, Cordoba, Santa Cruz and Tierra del Fuego or centre or south; Areas with the low HDI are Formosa. Santiago del Estero and Chaco, Misiones or north or border of Paraguay; Areas with moderate HDI are in the west/Chile border/coastal areas or other valid description (not named states) Note: Accept valid statistics as an alternative to highest and lowest area. 3 @ 1 mark	**3**

Question	Answer	Marks
5(b)(ii)	Ideas such as: Some areas have more natural resources; E.g. oil, coal etc.; Soil fertility varies within the country; Climate variations result in variation in food production; some areas are more accessible than others; Coastal or inland location E.g. ports are likely to develop as a result of overseas trade; Core area will develop more than periphery due to greater investment; Area close to capital city/cities/urban area will develop more; (Migration will result in) overpopulation in some areas thus poverty; Flat land; Variations in healthcare and education; Civil war/conflict; Natural disasters; Industry and TNCs; More employment opportunities; Tourism; Government policy/corruption Note: Accept points that focus on variation between countries. 5 @ 1 mark or development	

Question	Answer	Marks
5(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe a transnational company and/or its global links. Level 2 (4–6 marks) Uses named example. More developed statements which describe a transnational company and/or its global links. (**Note:** Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements which describe a transnational company and its global links, including some place specific reference. Content Guide: Answers are likely to refer to: Products produced/services offered Sources of raw materials Where production occurs markets transport of raw materials/products 'home' country/base etc. Place specific reference is likely to consist of: Locational details/named areas/countries Statistics etc.	7

Question	Answer	Marks
6(a)(i)	An industry/factory where components/materials are put together	1
6(a)(ii)	Ideas such as: There are relatively few workers/job not done by people; There is machinery/assembly line/robots etc. 2 @ 1 mark	2
6(a)(iii)	Input = things/what is needed for production to take place Processes = things which are done to convert raw materials to products Output = finished products Note: not individual examples – look for definition 3 @ 1 mark	3

Question	Answer	Marks
6(b)(i)	Ideas such as: Motorway access/road/main road/highway; Road/Motorway junction; Rail access; Housing nearby <u>will provide workforce</u>; Flat land; Sufficient space/room for expansion; Local market; Separate from housing (needs a reason) 3 @ 1 mark	3
6(b)(ii)	Reasons could include reference to: Lack of space/need to expand; Cost of land; Government incentives/disincentives or examples; Consideration of areas where labour is cheaper/in LEDC; Growth of new markets/closer to bigger market Move away from competitors; To reduce transport costs; Move to be close to suppliers/natural resources/other branches of company; Near to a port and airport; Complaints from residents <u>about</u> noise; Agglomeration 4 @ 1 mark	4
6(b)(iii)	Ideas such as: Smoke/emissions of gases/air pollution; Water/river pollution loss of/damage to natural vegetation/deforestation; birds/insects/animals killed /poisoned; extinction of species; impact on ecosystems/food chains; noise scares wildlife; habitat loss; acid rain industrial waste 5 @ 1 mark or development	5

Question	Answer	Marks
6(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe methods used to supply energy. Level 2 (4–6 marks) Uses named example. More developed statements which describe methods used to supply energy. (**Note:** Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements, including some place specific reference. Content Guide: Methods are likely to include: Fossil fuels (specified types of) Renewable energy (specified types of) Nuclear power etc. Place specific reference is likely to consist of: Locational details; Names of places/species within chosen country Specific details of methods	7