GEOGRAPHY   **0460/11**

Paper 1   **October/November 2018**

MARK SCHEME

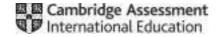Maximum Mark: 75

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.

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

Cambridge International is publishing the mark schemes for the October/November 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

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)	8 (%)	**1**
1(a)(ii)	It will decrease (1) From 16% to 10.4–10.8% / by 5.2–5.6% (2) – accept any figure within the range 2 marks	**2**
1(a)(iii)	Ideas such as: Decrease in young dependents; Increase in old dependents; Increase in economically active; 3 @ 1 mark	**3**
1(a)(iv)	Ideas such as : ***Young dependents*** More use of contraceptives/family planning; Government anti-natalist policy; Secularisation of society/less dependent on religion/less dependent on traditional culture; More <u>education</u> about disadvantages of high birth rates or larger families or contraception; Women can pursue a career/education of women/role of women; Abortion more readily available; People no longer have children to support them in old age; Less children needed to work; Later marriage/people have children later; Lower infant mortality rates (so people have less children) ***Old dependents*** Better health care/hospitals/doctors/medicines/vaccines; Pensions; Improved food supply/better diet; Clean water supplies; Better sanitation; Better care for elderly or example; 4 @ 1 mark (2 + 2)	**4**
1(b)(i)	Graph completion 2 marks for dividing lines 1 mark for shading 3 @ 1 mark	**3**

Question	Answer	Marks
1(b)(ii)	Ideas such as: Increasing/high dependency/they are not earning/less income from taxes/they don't produce anything; More pressure on economically active/working population; Need for more money to be spent on care for elderly/care homes/pensions; More taxation needs to be raised/higher taxes; Less workforce/harder to fill job vacancies/less economically active; Workforce becomes less innovative; Reduction in demand for school places/closure of schools/less money spent on education; Retirement/pension aged raised; More spending/pressure on healthcare; Less money spent on infrastructure; Country becomes difficult to defend 5 @ 1 mark or development	**5**
1(c)	**Levels marking** Level 1 (1–3 marks) Statements including limited detail which describe the impacts of overpopulation. Level 2 (4–6 marks) Uses named example. More developed statements which describe impacts of overpopulation. (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: • Employment • Food supply • Provision of health care • Provision of housing/shelter • Water supply • Sanitation • Provision of education • Air/water pollution • Deforestation Place specific reference is likely to consist of: Named parts of the chosen country, Population data, etc.	**7**

Question	Answer	Marks
2(a)(i)	80 (%)	**1**
2(a)(ii)	Increased (1) From 40 to 65 / by 25% (2) 2 @ 1 mark	**2**
2(a)(iii)	Ideas such as: Urbanisation has been occurring for a longer period of time in North America / urbanisation occurred a long time ago in North America; More industry/commerce/business has grown up in North America; Much of agriculture in North America is mechanised; Many people in North America work in factories and offices/many people in Africa work on farms. Note: Do not need comparison but do not double credit. Assume North America if not stated. Accepted opposite ideas but must be linked to Africa. 3 @ 1 mark	**3**
2(a)(iv)	Ideas such as people move to urban areas for: Employment/jobs/better paid jobs; health care or example; education or example; bright lights/entertainment; more food supplies; better sanitation/better hygiene; more reliable water supplies; more reliable electricity supplies; follow family and friends, etc. Note: Answer can focus on pulls of urban areas or pushes of rural areas but no double credit. 4 @ 1 mark	**4**
2(b)(i)	Problems such as: Poor quality housing (or specific detail such as not weather proof); No (piped) water/no water supply; No electricity supply; Lack of security/people could easily break in; Dangers from traffic; Atmospheric pollution; No sanitation/poor hygiene; Unstable housing; Small/cramped living conditions/living close together/no privacy; Litter attracts vermin/spreads disease; Fire risk/fire would spread easily 3 @ 1 mark	**3**

Question	Answer	Marks
2(b)(ii)	Ideas such as: Rural depopulation/population decrease/population becomes lower; Loss of economically active/reduction of workforce; Farm production declines/less food supply/food shortages; Starvation/malnutrition; Women/children/elderly dominate population structure or left behind; Disruption of family life/separate from family; Social problems; Children do work in fields/unable to attend school; Remittances will be received from migrants; AIDS/sexually transmitted diseases will increase; Less government investment/less innovation, etc. 5 @ 1 mark or development	5

Question	Answer	Marks
2(c)	**Levels marking** Level 1 (1–3 marks) Statements including limited detail which describe strategies used to reduce problems caused by rural to urban migration. Level 2 (4–6 marks) Uses named example. More developed statements which describe strategies used to reduce problems caused by rural to urban migration. (**Note:** Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate with some place specific reference. Content Guide: Answers are likely to refer to strategies such as: Site and services schemes; Self-help schemes; Building of low cost housing; Increasing police force/security; Road building; Investment in rural areas; Rural development schemes, Installation of water/electricity supply, Sewage treatment, Building of schools; Investment in hospitals/health care; Creation of employment; Strategies to deal with traffic congestion, etc. Place specific reference is likely to consist of: Locational details, Specific details of the schemes, Named parts of urban area, etc.	**7**

Question	Answer	Marks
3(a)(i)	Divergent	**1**
3(a)(ii)	Gap/opening/space created between plates; Magma <u>rises</u> to fill gap 2 @ 1 mark	**2**
3(a)(iii)	Ideas such as; Subduction/one plate sinks under the other; Melting/destruction of plate/plate turns to magma; Build up of magma/pressure Magma escapes/magma rises up <u>through crack/fault</u>/magma moves <u>to the surface</u> 3 @ 1 mark	**3**
3(a)(iv)	Ideas such as: Plates slide past each other/converge/diverge; Friction occurs/the plates get stuck; Pressure builds up/tension builds up; Pressure release/sudden jerk/sudden fracture; Vibrations transmitted to surface/creates seismic waves/creates shock waves; 4 @ 1 mark	**4**
3(b)(i)	Ideas such as: Mudflows; Poisonous gases/fumes; Lava; (Clouds) of ash, etc. 3 @ 1 mark	**3**
3(b)(ii)	Ideas such as: Monitoring of volcano/people are aware of what volcanoes doing/scientists study the volcano; Prediction of volcano/warning system; Evacuation of people from area/evacuation plans/evacuation centres; <u>Diversion</u> canals for lava/barriers or embankments to <u>block path of lava or stop flow of lava/</u>lava can be diverted; Restrict tourist access to volcano; Build stronger houses/roofs (or reference to other design features); Spray lava with water; Educating people about how to respond or prepare/emergency drills; Emergency services/services prepared/healthcare prepared; Wear masks; Hazard zoning/no development in restricted area; Restrict flights; Short term aid in place such as food and tents; 5 @ 1 mark or development	**5**

Question	Answer	Marks
3(c)	**Levels marking** Level 1 (1–3 marks) Statements including limited detail which explain why people live close to a volcano. Level 2 (4–6 marks) Uses named example. More developed statements which explain why people live close to a volcano. (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: Tourism, Employment, Geothermal power, Population pressure, Fertile soils; Friends and family Expense of moving, People take the risk/people unaware of the risk; Religious Belief People have faith in precautions/planning Place specific reference is likely to consist of: Locational details, Specific/named details of area adjacent to volcano, etc.	7

Question	Answer	Marks
4(a)(i)	West/east to west	1
4(a)(ii)	On map 2 @ 1 mark	2
4(a)(iii)	Ideas such as it is: More tributaries join the Tillingbourne; Tillingbourne has larger catchment area; Tillingbourne is further from the source; Tillingbourne is on flat or lower land/more likely to have a flood plain etc Note: Assume Tillingbourne if not stated. Can accept opposites as long as linked to Law Brook. Needs to compare. 3 @ 1 mark	3
4(a)(iv)	Issues such as: Damage to houses/people have to move out; Damage to possessions or examples (max 1); Roads flooded/impassible/transport disrupted/communications lost; Farmland flooded/crops destroyed/farm animals or livestock drown/loss of food supplies; Shops flooded/have to close; Closure of school/doctor/other example of service (max 1); People may drown/injured; Spread of water-borne disease or example; Drinking water contaminated; 4 @ 1 mark	4
4(b)(i)	Ideas such as: Higher flow levels in March/lower in September/flow decreases in September; Greater fluctuations in March/more regular flow in September; Up to 2700 litres or over 2500 litres (per second) in March but around 500 / 600 in September Note: MAX 1 reserved for Statistics. Must compare. 3 @ 1 mark	3
4(b)(ii)	Ideas such as: Variation in amount of precipitation/in one season there is lots of rain; Variation in intensity of precipitation; Heavier/more intense precipitation lead to more surface run off; Variation in temperature; Different amount of moisture lost to evapotranspiration or transpiration or evaporation in different seasons; Degree to which ground is saturated; Glaciers/ice/snow melt could cause higher levels (in Spring); More extraction of water (in summer), etc. Note: No need to compare. 5 @ 1 mark or development	5

Question	Answer	Marks
4(c)	**Levels marking**	**7**
	Level 1 (1–3 marks) Statements including limited detail which describe how river is managed to reduce flood risk. Level 2 (4–6 marks) Uses named example. More developed statements which describe how river is managed to reduce flood risk. (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: Monitoring, Building dams/reservoirs; Increasing height of banks/levees, Dredging/Widening, Overflow/flood relief channels Afforestation Early Warning Housing adapations/zoning Clearing debris from river Place specific reference is likely to consist of: Named places along river, specific details of schemes, etc.	

Question	Answer	Marks
5(a)(i)	Where (raw) <u>materials</u> are turned into finished products/something else	**1**
5(a)(ii)	Belfast = Main source of labour; UK = main market 2 @ 1 mark	**2**
5(a)(iii)	Changes such as: More flax is imported/less local flax is used/imported from more countries Finished product is exported to more countries or examples/wider market/bigger market; Water power/coal is no longer used but they now use electricity; Less labour in present day; **Note:** Need to show that they have used both diagrams. 3 @ 1 mark	**3**

Question	Answer	Marks
5(a)(iv)	Ideas such as: Geographical/industrial inertia; There is a <u>skilled</u> labour force; The area has a reputation; There are training establishments located in the area; Cost of relocation may be excessive Government policy or example; 4 @ 1 mark	**4**
5(b)(i)	Ideas such: Drinks are being put in bottles/bottling/bottles being filled; Labels are being attached to bottles/boxes/labelling; Bottles are being packed (in boxes)/packaged (in boxes); There is a conveyor belt which is moving the bottles/assembly line; The bottling process is <u>mechanised</u>; People are employed to pack bottles into boxes/operate the machines/packaging is done <u>manually</u>; Check the bottles for defects; 3 @ 1 mark	**3**
5(b)(ii)	Ideas such as: Industrialisation occurs/jobs in agriculture are mechanised; Low skill/manual work in factories means <u>many</u> people are employed/labour intensive; Mechanisation/automation leads to less employment in manufacturing as the country develops further; Transnational companies set up factories/Transnational companies leave the country; With increasing wealth the economy becomes more based on tertiary sector; Manufactured goods are imported; It may be cheaper to import rather than manufacture, etc. 5 @ 1 mark or development	**5**

Question	Answer	Marks
5(c)	**Levels marking** Level 1 (1–3 marks) Statements including limited detail which describe the positive impacts of a transnational company. Level 2 (4–6 marks) Uses named example. More developed statements which describe the positive impacts of a transnational company. (**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: Employment, Development of economy, Infrastructural development, Development of transport – roads/railways/airports Development of skills Income generation and multiplier effect Increased taxation Place specific reference is likely to consist of: Locational details/named areas/countries Statistics, etc.	7

Question	Answer	Marks
6(a)(i)	An artificial lake An area behind a dam which stores water A man made water store or reserve A lake where water is stored	1
6(a)(ii)	**Similarity** = in a valley/surrounded by hills/they both have a dam/stream goes in or stream comes out **Differences** = Agden is below 200 metres, Dale Dyke above 200 metres (or higher) / Dale Dyke is long and thin shape, Agden is more square / Dale Dyke is supplied by another reservoir and Agden is supplied by a river 2 @ 1 mark	2
6(a)(iii)	Ideas such as: Impermeable land; Valleys are easy to dam/there is a valley/surrounded by high land; Large catchments; Large amounts of precipitation/snowmelt; Land is rural/not built up; No sources of industrial pollution; 3 @ 1 mark	3
6(b)(i)	Ideas such as: Agriculture/irrigation/on farms/for farming; Use in factories/industry or example; Domestic use/in the home, etc. 3 @ 1 mark	3
6(b)(ii)	Reasons could include reference to: LEDCs are (more likely to) depend on agriculture; (Subsistence) farmers in LEDCs will starve if no food is produced; LEDCs have invested less in water storage than MEDCs; LEDCs are less able to transfer water to areas where there are water shortages; LEDCs do not have water storage/LEDCs have few reservoirs; LEDCs cannot afford to import water; People in LEDCs drink polluted water/get water-borne disease; Note: Assume LEDC context. MEDC context is fine but must be stated. Note: No need to compare. 4 @ 1 mark	4

Question	Answer	Marks
6(b)(iii)	Methods such as: Pumping water from underground/aquifer; Wells; Desalination plants; Use of water from springs; Use of water tankers; Bottled water supplies; Water treatment/purification/cleaning of rivers/boil water (large or small scale is fine); Rainwater harvesting or examples; Boreholes; Humidity traps; Water Transfer Pollution controls; Import water 5 @ 1 mark or development	5

Question	Answer	Marks
6(c)	**Levels marking** Level 1 (1–3 marks) Statements including limited detail which describe the environmental risks of an economic activity. Level 2 (4–6 marks) Uses named example. More developed statements which describe the environmental risks of an economic activity. (**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: Any activity could be chosen e.g. Agriculture, Tourism, Manufacturing industry, Energy supply, Quarrying/mining, Fishing, Forestry, etc. Environmental risks will depend on activity chosen but are likely to include: Deforestation, Atmospheric pollution, Water/river/marine pollution, Threat to species, Impacts on food chains/ecosystems, Place specific reference is likely to consist of: Locational details; Specific details of economic activity and risks.	7