Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

GEOGRAPHY **0460/12**

Paper 1 **October/November 2017**

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.

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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.

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Question	Answer	Marks
1(a)(i)	Growth/change/increase in population as a result of difference in number of births and deaths/births minus deaths/where birth rate is higher than death rate;	**1**
1(a)(ii)	12.4 – 9.2 (per 1000) (1 mark) = 3.2 (per 1000) (2nd mark) 2 × 1 mark	**2**
1(a)(iii)	Ideas such as; • birth rates/fertility rates are low/decreasing/death rate higher than birth rate; • availability/affordability/use of contraception/family planning; • contraception/family planning – education about it; • modern attitudes to family size/people want small families/less children/expensive to have children; • women/people have careers/are career orientated/focus on careers rather than families; • emancipation of women; • impact of secular society; • low infant mortality rates; • abortions available/legal; • late(r) marriages/wait a long time to have children; • same sex partners; • outward migration/negative net migration; 3 × 1 mark	**3**

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>1(b)(i)</td><td>Ideas such as:
Rates fall more rapidly in Bangladesh/fall less rapidly in Pakistan/Bangladesh has largest fall (entire period or any years);
Rates fall evenly in Pakistan, steeply in Bangladesh at first but levels off;
Rates are higher in Bangladesh up to 1990/1991/1992 and after that they become lower than Pakistan/rates lower in Pakistan;

RESERVE 1 mark MAX for stats – both countries needed plus statistics for <u>any</u> two years which illustrate change (either 4 figures or two years with total change calculated) Note: per 1000 not needed.

Example statistics, but note any two years showing change can be used:

<table><tr><td>(per 1000)</td><td>1980</td><td>2015</td><td>Difference</td></tr><tr><td>Bangladesh</td><td>130</td><td>34</td><td>–96</td></tr><tr><td>Pakistan</td><td>112</td><td>56</td><td>–56</td></tr></table>Tolerance: ± 1

3 × 1 mark</td><td>3</td></tr>
<tr><td>1(b)(ii)</td><td>Ideas such as:
Poor health care/clinics/hospitals;
Lack of doctors/nurses;
Lack of vaccinations;
Lack of medicines/cure for diseases;
Lack of education about healthcare/sanitation/diet;
Poor food supply/malnourishment/starvation/no food/famine/deficiency disease/crops fail;
Water is not clean/water shortage/no water/drought;
Waterborne diseases/cholera/typhoid/malaria;
Sanitation/hygiene poor;
HIV/Aids;
War/conflict;
Cultural neglect of girls;

4 × 1 mark</td><td>4</td></tr>
</table>

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Question	Answer	Marks
1(b)(iii)	Ideas such as: People are likely to have many children/large families/want lots of children; As they think that many will not live long/hope some survive/to replace children who die/lots of babies die; They want children to help on the land/farming; They want children to help in the home/look after siblings; They want children to fetch water/collect wood; They want children to go out and earn money/to work/for labour; To look after them/take care of them in old age; As there are no pensions/state benefits for elderly (e.g. of development) 5 × 1 mark or development	**5**

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Question	Answer	Marks
1(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe a population policy used to influence growth rate. e.g. One child Policy; Level 2 (4–6 marks) More developed statements which describe how a population policy is used to influence growth rate NOT the impacts. Note: Credit different approaches within a policy, so for example, when marking a China One Child Policy answer, ideas will often cover the following: Incentives; Penalties; Exceptions; Enforcement; Note: Credit only 1 L2 mark for each of these four ideas above, although credit should also be given for other ideas such as developing the idea such as applying to have a child/increasing the age of marriage which do not fit the four ideas above. e.g. one child policy and free education L2; one child policy and use of fines if more than one child L2; one child policy and parents not penalized if they have twins or a child is disabled L2 one child policy and Granny police check if couples are conforming to law L2 Note: If another country is given generally apply the same principle, but other ideas in the Content Guide will be relevant e.g. gender equality acts or educating women etc. (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 which can be named parts of the chosen country, Population data, reference to a specific named policy/specific details about it etc. Content Guide: Answers can refer to anti-natal policy, pro-natal policy or migration programmes and could include ideas such as: e.g. China one child policy/limit number of babies/restrict number children make (free) contraceptives available examples of specific incentives (e.g. free education, free health care) examples of disincentives (e.g. if have a 2nd child e.g. fines, lose jobs reduce benefits for people having children e.g. reduced maternity leave/child benefit/child tax credits) forced sterilization	**7**

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Question	Answer	Marks
1(c)	free goods e.g. radios in India marriage regulations e.g. late marriage/seek permission <u>Other ideas:</u> educate people about contraception legalise abortion introduce pensions for elderly educate women to encourage them to take jobs or careers gender equality acts advertise the benefits of small families (The reverse ideas would apply to pro-natal policies) Note: Development should refer to the policy itself not reasons or explanations for it.	

Question	Answer	Marks
2(a)(i)	(A place where people live/residential area in the) countryside/away from the city/surrounded by farmland/open space around.	**1**
2(a)(ii)	Ideas such as houses are: • Scattered/separate from/close to each other; • Single storey/not very tall; • Made of breeze blocks/concrete blocks • Roofs are made of zinc/corrugated iron/metal; • Small/few rooms; • Small windows; • Rectangular/long and thin; 2 × 1 mark	**2**

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Question	Answer	Marks
2(a)(iii)	Ideas such as: They are at the base/bottom of pyramid/hierarchy; There are many/lots of them; They are close together; Low order settlements; 3 × 1 mark	**3**
2(a)(iv)	Ideas such as: To get a job/better wages/wealth/more money; Little/poor health care/doctors; To look for education for their children; Aridity/drought; Food supplies are difficult to grow/soils are not fertile; Political issues/civil wars/persecution; Water/electricity supplies may be unreliable/poor; Poor sanitation/hygiene; Bright lights/entertainment; Joining friends and family; Note: Accept pulls or pushes but do not double credit	**4**
2(b)(i)	A = linear/in a line B = dispersed/scattered/random C = nucleated/nuclear/clustered 3 × 1 mark	**3**
2(b)(ii)	<u>Influenced by:</u> Relief/gentle slope; Water supply/lake/river; Land use/areas of farmland/forest; Roads; Further marks available for reference to settlement pattern, e.g.: A linear settlement/Fig. A will ……..develop in a valley/along a road A dispersed settlement/Fig. B will….. have houses across farmland/throughout/spread across forest; A nucleated settlement/Fig.C will …develop around crossroads/bridging point/lake; 5 × 1 mark.	**5**

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Question	Answer	Marks
2(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which give reasons for growth of an urban settlement. Level 2 (4–6 marks) Uses named example. More developed statements which give reasons for growth of an urban settlement. E.g. migration into city due to employment L2 (Note: Max 5 if no named or inappropriate example) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements which give reasons for growth of an urban settlement. Including some place specific reference. Content Guide: Growth could relate to the growth of population/area/importance of the settlement. Candidates are likely to refer to; Employment Migration Transport and communications Relief Water supply Tourism Political factors etc. NOT birth rate ideas. Place specific reference is likely to consist of: Named parts of the chosen settlement/ detail of functions/statistics Etc. Examples can be MEDC/LEDC city/town in any country.	**7**

Question	Answer	Marks
3(a)(i)	The point beneath the earth's surface/underground/below the epicentre where rock breaks/the plates shift/the earthquake originates/takes place/starts/occurs. Note: link between both ideas needed.	**1**

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Question	Answer	Marks
3(a)(ii)	Focus = 34–50 Intensity = 6.0–6.9 2 × 1 mark	**2**
3(a)(iii)	Ideas such as: North Island has had more earthquakes/South Island has less; North Island earthquakes have deeper focus/use of data in key to show this; Earthquakes were mainly in east of/all over/ North Island but on west/coast of South Island/more even on North Island; Closer to plate boundaries on South Island/further away on North; Similar strength on both islands/ use of data in key to show this e.g. both mainly less than 7 or both 8–8.9; 3 × 1 mark	**3**
3(a)(iv)	Ideas such as: On/close to plate boundaries/lines of weakness/where plates meet; Where plates move (in relation to each other)/one under another/subduction/slide past; Friction/plates stick; Pressure build up/tension; Energy released/plates jerk apart etc. Note: Allow either destructive or conservative plate boundary. 4 × 1 mark	**4**
3(b)(i)	Ideas such as: It is true/partially true/true to some extent/there has been an increase over the time period; Fluctuating/the increase has not been consistent/have been increases and decreases/more in some years; The biggest increase is in earthquakes 6.0 to 6.9/earthquakes over 7.0 have not increased/have not increased as much; 1 mark MAX for use of relevant statistics to illustrate strength from two years to back up any of above (statistics must illustrate change). No reserve mark for statistics. 3 × 1 mark	**3**

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Question	Answer	Marks
3(b)(ii)	Ideas such as: Employment in tourist industry; e.g. tourist guides; Fertile soils; High yield/income from crops; Quarries/mines/minerals extracted; Such as sulphur deposits/gold/diamonds; They have lived there all their lives/birthplace//sentimental/tradition/religious ideas; Friends and family live in the areas; Geothermal power/renewable energy; Scenic beauty; To study the volcano; Pressure on land; Confidence in protection methods/prediction; Don't think it will happen; 5 × 1 mark or development	**5**

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Question	Answer	Marks
3(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe either the natural hazard OR its impact on people/the natural environment. E.g. lava flows (L1) breathing difficulties/kills animals (L1) Level 2 (4–6 marks) Uses named example More developed statements which links the hazard with the impacts on people. E.g. lava flows kill people L2; Only credit one L2 for each hazard e.g. ash/lava etc. (Note: Max 5 if no named or inappropriate example. Credit country names to max.5) Level 3 (7 marks) Comprehensive and accurate statements including some place specific reference. Content Guide: Answers are likely to refer to: Hazards such as: Lava (accept magma) Volcanic bombs Poisonous gases Mud flows/Lahars Pyroclastic flows Volcanic Blast Ash Impacts such as Deaths Injuries Destruction of homes Loss of workplaces Fires Damage to infrastructure Disruption of transport network, Loss to economy etc. Place specific reference is likely to consist of: Locational details/named areas within/around the volcano, Specific details of eruption/date/time/magnitude Statistical information e.g. number of deaths	**7**

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Question	Answer	Marks
4(a)(i)	22N 90E	**1**
4(a)(ii)	Ideas such as: In/on/near coast/next to Bay of Bengal/by the sea; In south/south west; Where rivers reach sea/around inlets/on delta; Stretches approx. 50 km (any figure 20–100 km inland; Between 21–23 N; Between 89–91 E; 2 × 1 mark	**2**
4(a)(iii)	Ideas such as mangroves: Grow between high and low water mark; Evergreen trees Salt tolerant/live in salty water/are halophytes; Aerial roots; Salt filtering roots; Salt excreting leaves; Prop roots; etc. 3 × 1 mark	**3**
4(a)(iv)	Ideas such as: Warm water/temperatures between 18–27degrees C (accept figure within range); Shallow water/not more than 60 metres deep; Water free from sediment/clear/clean/not polluted/sunlight able to penetrate the water; Plentiful supply of oxygen in water; Plentiful supply of plankton; In areas of gentle waves/currents/calm/slow moving water; Neutral/high pH/alkaline water; Salty water etc. 4 × 1	**4**
4(b)(i)	Ideas such as: Soft/unconsolidated rock/clay; Saturated rock/soil/clay/heavy rainfall weakens cliff/slumping; There are no protective measures for the cliffs/no groynes/lack of beach; Large/strong/destructive waves/storms; Long fetch Lack of vegetation; etc. 3 × 1 mark	**3**

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Question	Answer	Marks
4(b)(ii)	Candidates can choose any of the three methods and justify them. Marks to be awarded for reasons why they have chosen the method and/or why they have rejected the other two but NOT disadvantages of their chosen method. If no scheme chosen, no marks are awarded, unless the scheme is indicated in their answer. <u>E.g. Build an offshore breakwater</u> Quick; reduces wave strength; Reduces wave erosion (as waves break further out); Reduces longshore drift; Cheap; Tyres don`t need to be dumped elsewhere/burnt; Creates a new marine environment; Breakwaters/tyres may be removed by heavy storms; Technically difficult to install; Car tyres may pollute the sea; Visually unattractive etc. E.g. <u>Build groynes every 50 metres</u> Cheap; Ecofriendly; This will build up a larger beach; And also reduce the power of the waves; They will not put off tourists; Longshore drift will be prevented; Other areas further down coast will become more vulnerable May rot away; Cliffs will still be unprotected/likely to slump etc. <u>E.g. Build a long concrete sea wall</u> Harder to break/strong; Lasts long time/many years; Offers highest protection to property/farmland/roads; Reduces wave energy; High maintenance costs; Waves reflecting off the wall can scour the beach; A concrete sea wall would be very expensive; And destroy habitats; Such as nesting sites for sea birds etc. Works best ^ Stop erosion ^ Stop erosion more effectively than other methods ^ **Note: Do not double credit direct opposites.** If more than one scheme chosen, take the highest mark for one of them. 5 × 1 mark or development	**5**

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Question	Answer	Marks
4(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which explain why people live along an area of coastline. Level 2 (4–6 marks) Uses named example. More developed statements which explain why people live along an area of coastline. (Note: Max 5 if no named or inappropriate example. Example to be smaller in size than a country.) Level 3 (7 marks) Comprehensive and accurate statements including some place specific reference. Content Guide: Answers are likely to refer to: Industry Ports Fishing Leisure activities/for surfers etc. Fresh air/sea breeze/specified climate points; Peaceful Retirement Tourism if linked with employment Scenic beauty Farming etc. Place specific reference is likely to consist of: Locational details, Named places along coast Specific details of employment opportunities Statistics etc.	**7**

Question	Answer	Marks
5(a)(i)	On graph Can be a cross or point, no need to label. Do no credit if more than one plot = 0.	**1**
5(a)(ii)	Primary industry in an LEDC = E Secondary industry in an MEDC = F Tertiary industry in an NIC = D 3 correct = 2 marks 1/2 correct = 1 mark	**2**

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Question	Answer	Marks
5(a)(iii)	Ideas such as: More primary in LEDC or MEDC 10 and LEDC 80; More secondary in MEDC or MEDC 20 and LEDC 7/8/9; More tertiary in MEDC or MEDC 70 and LEDC 11/12/13; MEDC mainly tertiary and LEDC mainly primary; MEDC lowest in primary and LEDC lowest in secondary; Note: Answer needs to be comparative unless using correct. Statistics. Do not credit the word 'only' if the statistics are wrong 3 × 1 mark	**3**
5(a)(iv)	Ideas such as: Better education/more skills; Lack of investment; Availability/exhaustion of natural resources; More technology/mechanization; Demand for services; Many people in LEDCs are subsistence farmers/grow their own food; Export of RMs from LEDCs for processing in MEDC/Impact of colonialism on resource development; 4 × 1 mark	**4**
5(b)(i)	Ideas such as: It has links/factories/sales in many parts/all over the world/many countries involved/every continent/worldwide; Suppliers/raw materials/sugar/cocoa/palm oil are largely in LEDCs/S. America/Africa/Asia; Headquarters are in Europe/MEDC 3 × 1 mark	**3**

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Question	Answer	Marks
5(b)(ii)	Ideas such as: Make more profit/seek new markets/make more money; Improved/good transport/rapid growth in air-travel/easy movement of people and goods across the globe. Containerisation; Reduced the costs of transport; Making trade cheaper and more efficient; Improved communications/technology/easier to communicate and share information around the world/information spreads quickly; e.g. internet; Growth of multinational companies/TNCs; Growth of global trading blocks; Which have reduced national barriers; e.g. European Union, NAFTA, ASEAN; Reduced tariff barriers/free trade; Firms exploiting gains from economies of scale; To gain increased specialization; Growth of global media/social media; Improved mobility of capital; Increased mobility of labour; Cheaper labour in other countries/LEDCs; Going to places with higher skill levels e.g. IT skills; Government incentives/cheap taxes/free ports; 5 × 1 mark or development	**5**

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Question	Answer	Marks
5(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe the impacts of a transnational corporation on an LEDC. Level 2 (4–6 marks) Uses named example. More developed statements which describe the impacts of a transnational corporation on an LEDC. (**Note:** Max 5 if no named or inappropriate example – needs both the name of the TNC and the LEDC) Level 3 (7 marks) Comprehensive and accurate statements including some place specific reference. Content Guide: NOTE: Impact of the TNC rather than the product being produced. Answers are likely to refer to: Creation of jobs Wealth creation Infrastructural development Development of communications network Exploitation Low wages Specified pollution etc Place specific reference is likely to consist of: Specific details about TNC Named areas where TNC operates Statistical detail = 0 Global warming	**7**

Question	Answer	Marks
6(a)(i)	Manufacturing is the making of/producing of products/changing RMs to products/processing raw materials	**1**
6(a)(ii)	Food processing = meat/milk Crop = bananas 2 × 1 mark	**2**

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Question	Answer	Marks
6(a)(iii)	Ideas such as: Several manufacturing industries are located close to their raw materials; E.g. processing of shrimps near to shrimps/where shrimps are found; Tanning close to areas where there are cattle; Sugar refineries in/close to sugar cane areas; Milk processing/dairy close to cattle; Etc. 3 × 1 mark	**3**
6(a)(iv)	Factors such as: Road/rail transport; Ports/navigable river/canal; Airports; Markets; Labour supply; Cost/availability of land/flat land; Availability of energy/electricity/power/gas/coal; Government policies/incentives (or example) Water for cooling etc. 4 × 1 marks	**4**
6(b)(i)	Ideas such as: Raw materials/natural resources; Components/parts; Energy/fuel/power/electricity; Labour/management; Capital/money/investment; Machinery; Land; Etc. 3 × 1 mark	**3**
6(b)(ii)	Accept any secondary industry e.g. steel making, sugar manufacture, cars. Reserve 1 mark for example and main output (both required). Example can be type (e.g. car assembly) or the name of a firm (e.g. Volkswagen). If industry is not correct or not stated credit can still be given for valid manufacturing processes, but no credit for primary or tertiary industry. 4 marks for manufacturing processes relevant to chosen example with development as appropriate from when the product comes into the factory. Accept R&D and packaging but not e.g. marketing, designing, advertising, delivery. 5 × 1 mark or development	**5**

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Question	Answer	Marks
6(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which explain how the land use is influenced by natural factors. E.g. fertile soil L1, flat land L1. Level 2 (4–6 marks) Uses named example. More developed statements which explain how the land use is influenced by natural factors. Note: Crops and animals must be named where a land use is mentioned and not e.g. arable for L2. E.g. fertile soil to grow cereal crops L2 Flat land allows mechanisation L2 (Note: Max 5 if no named or inappropriate example such as a country name) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements including some place specific reference. Content Guide: Answers are likely to refer to: relief, precipitation temperatures sunshine soils Note: Crops or animals must be specified for L2. Do not credit negative impacts of natural hazards on farming e.g. drought, but only credit positive responses e.g. using drought resistant crops etc. Place specific reference is likely to consist of: Locational details; Names of places within chosen area Specific details/statistics of soil/climate Statistics.	**7**

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