Cambridge Assessment International Education

Cambridge IGCSE™

GEOGRAPHY **0460/12**

Paper 1 Geographical Themes **May/June 2023**

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.

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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.

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Question	Answer	Marks
1(a)(i)	Spain, Italy, Cyprus, Malta. (Correct order needed.) 1 mark	**1**
1(a)(ii)	Ideas such as: Western end of Mediterranean/between Spain and Morocco/coast of Morocco/near coast of Spain/from Morocco to Spain/crossing the sea from Morocco; Coast of Libya/Tunisia/between Libya (or Tunisia) and Italy (or Malta)/from Libya (or Tunisia) to Malta/Italy/crossing the sea from Libya/Tunisia; Eastern end of Mediterranean/coast of Turkey/between Turkey and Greece; crossing the sea from Turkey; 2 @ 1 mark	**2**
1(a)(iii)	Ideas such as: War/civil unrest; Drought/lack of (clean) water; Famine/starvation/lack of food; Political/religious/ethnic/gender persecution/genocide/discrimination; Natural disaster (or specific example e.g., volcano, flood) etc. 3 @ 1 mark	**3**
1(a)(iv)	Ideas such as; Pressure on/increased demand food; Pressure on/increased demand water supplies; Lack of housing/temporary accommodation/overcrowded housing/homelessness/refugee camps/squatter settlements/shanty towns; Pressure/increased demand on health care/increase in specified disease e.g., Diphtheria, Ebola, Covid-19; Pressure on/increased demand education; Unemployment/they may take jobs of local people; Problems caused by many people who don`t speak the local language e.g., need for/cost of translation etc.; Conflicts with/resentment of local population/racial tension/cultural clashes; Increased/high crime rate; Cost/time/difficulty of processing immigrants; Need for patrols/rescue boats; Need for financial support; Political differences on how to deal with the issue etc. 4 @ 1 mark	**4**

Question	Answer	Marks
1(b)(i)	Completion of **Fig. 1.2.** Dividing line at 3500 (1 mark) Dividing line at 7000 (1 mark) Shading (1 mark) 3 @ 1 mark	**3**
1(b)(ii)	Ideas such as; Difficulty finding employment; Discrimination/racial abuse/racial conflict/racial tension/xenophobia/racism; Low pay/exploitation/dirty jobs; Language difficulties; Finding/affording a home/poor housing/housing problems; Away from friends and family/people of same ethnicity; Qualifications will not be accepted; Hard to get citizenship/lack of documentation/VISA/permission to work/work permit/long wait for processing/possible deportation; Hard to adapt to culture/culture shock; Can`t afford clothing/food/education/health care etc. Etc. 5 @ 1 mark or development	**5**

Question	Answer	Marks
1(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe the problems caused by a high dependent population. Level 2 (4–6 marks) Uses named example. More developed statements which describe the problems caused by a high dependent population. (**Note**: Max 5 if no named or inappropriate example.) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements which describe the problems caused by a high dependent population including some place specific reference. Content Guide: E.g., old dependent Answers are likely to refer to: High dependency rate; Stress on working population; Increased taxation; Lack of workforce; Need to provide pensions; Lack of innovation; Difficulty recruiting armed forces; Pressure on healthcare; Under use of facilities for young people/closure of schools etc. Place specific reference is likely to consist of: Named parts/settlements of the chosen country, Population data etc.	**7**

Question	Answer	Marks
2(a)(i)	3.2–3.8 (km). 1 mark	**1**
2(a)(ii)	Ideas such as: Widespread/spread out/throughout the urban area; Linear; In/around/radiate out from CBD; Along roads/highway; Along railway etc. 2 @ 1 mark	**2**
2(a)(iii)	Ideas such as in CBD services will be: (Assume CBD unless otherwise stated). Larger; More variety/greater range of shops/services; Higher order; Have larger range/sphere of influence; Be more specialist; High end/luxury goods compared with essential items; Be used less frequently; Have larger thresholds; Comparative example e.g., department store cf grocers/banks v schools (1 MAX) etc. Can also accept ideas re. suburbs but comparison required. 3 @ 1 mark	**3**
2(a)(iv)	Ideas such as: Residential area nearby/densely populated area; So large demand/large turnover/more profit/more customers/people can easily walk to them; Location on main roads; So, people can easily drive to them/delivery of goods/transport goods; So, passing trade/more customers/extra business/people stop to buy things on their journey; Low-cost land; So, businesses can afford larger buildings/lower rents. (2 marks for simple reason 2 marks for explanation.) 4 @ 1 mark	**4**

Question	Answer	Marks
2(b)(i)	Ideas such as: (Assume general store unless otherwise stated). Large supermarket has larger (sphere of) influence/general store smaller; Large supermarket sphere of influence extends beyond urban area boundary, but general store is within boundary; Large supermarket sphere of influence is mainly north of CBD, but general store sphere of influence is south of CBD; Large supermarket includes CBD in its sphere of influence, but general store does not; Large supermarket sphere of influence is approx.10/15 km across but general store 2/3 km etc. **Note**: Comparison required. Can also accept ideas re. supermarket but comparison required. 3 @ 1 mark	**3**
2(b)(ii)	Ideas such as: There will be more general stores than large supermarkets; People are more likely to walk to general stores/travel by car to large supermarkets; General stores are closer to where people live; Large supermarket sells wider range of goods; People visit general store more regularly/daily; People prepared to travel further to large supermarket; Prices may be cheaper than general stores etc. **Note**: comparison needed (or implied). 5 @ 1 mark or development	**5**

Question	Answer	Marks
2(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe the methods used to improve housing conditions. Level 2 (4–6 marks) Uses named example. Developed statements which describe the methods used to improve housing conditions. (**Note:** Max 5 if no named or inappropriate example.) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements which describe the methods used to improve housing conditions, with some place specific reference. Content Guide: Answers are likely to describe: Comprehensive redevelopment schemes; Smaller urban renewal schemes; Building of housing estates/houses in suburbs; Building of high-rise flats; Site and services schemes; Self-help; Provide tools/training/building materials; Installation of water pipes; Installation of electricity grid; Improvement grants/low interest loans etc. **Note:** Answer can relate to housing improvements in urban areas in LEDCs or MEDCs. Place specific reference is likely to consist of: Locational details, Names of areas within the urban area, Specific details/name of the schemes etc.	**7**

Question	Answer	Marks
3(a)(i)	1.2 (million). 1 mark	**1**
3(a)(ii)	More deaths in Haiti/less deaths in China; More injuries in China/less injuries in Haiti; 2 @ 1 mark	**2**
3(a)(iii)	Ideas such as: Poor quality/flimsy buildings/housing/housing not earthquake resistant/homeless/many people live in squatter settlements; Many people living in camps/spread of disease; Many people living in each household/crowded houses; Lack of/cannot afford health care/treatment/injuries not treated; Had no access to food; Inadequate/dirty water supplies/poor sanitation; No education on what to do in an earthquake/no finance for drills etc; Could not afford survival kits/First Aid kits etc. 3 @ 1 mark	**3**
3(a)(iv)	Ideas such as: Destruction of houses/public buildings OR public buildings/houses need to be rebuilt or e.g.,/service or e.g./workplaces or e.g.; Destruction to roads/railways/ports affected trade; Cost of search and rescue; Cost of rebuilding housing; Cost of rebuilding shops/churches/schools/hospital etc; Cost of renewing roads/railways/power networks/ports/airports/water pipelines/sewage pipelines etc; Cost of aid/relief to victims or e.g., food/water/tents etc; Cost of repayment of foreign aid/creates debt; Cost of rebuilding factories/loss of production/unemployment; Tourist numbers fall; Cost of health care; Loss of/death/injury to productive workforce; Growth of economy due to construction work etc. 4 @ 1 mark	**4**
3(b)(i)	Ideas such as: Uneven/clustered; Linear; Crescent shape/curve; Close to faults/plate edges; (Especially) boundary of/between North American and Pacific Plate; West/South/SW Alaska/off south coast of Alaska; A few in centre of Alaska etc. 3 @ 1 mark	**3**

Question	Answer	Marks
3(b)(ii)	Ideas such as: Convection currents; Plates are converging/moving towards each other/Pacific Plate moving towards North American Plate; Subduction/one plate (Pacific) goes under the other; The plate which goes under (Pacific plate) is heavier/more dense; Friction; Pressure/tension build up/plates get stuck; Pressure/tension release; Jolting/plates slip etc. 5 @ 1 mark or development	**5**
3(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which describe the impacts of a volcanic eruption. Level 2 (4–6 marks) Uses named example. More developed statements which describe the impacts 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 place specific information. Content Guide: Answers are likely to refer to: Deaths/injuries; Destruction of homes; Destruction of workplaces; Destruction of specific buildings (e.g., schools, hospitals); Damage to/blockage of roads; Disruption to flights; Damage to forests; Loss of crops/farmland; Creation of fertile soil; Minerals created or e.g.; Tourism; Etc. Place specific reference is likely to consist of: Locational details, Specific details of the area, Statistics etc. **Note** Impacts can be positive.	**7**

Question	Answer	Marks
4(a)(i)	Cirrus/cirrocumulus. 1 mark	1
4(a)(ii)	3rd June (1 mark). There was 1 okta of cloud on that date/the cloud covered one eighth of the sky/it was the only day with the amount of cloud shown in the photo. 2 @ 1 mark	**2**
4(a)(iii)	Ideas such as: Place in Stevenson Screen/white box; Check every 24 hours/at set time; Read/measure minimum and maximum temperatures/both thermometers; Read off levels at base of metal marker; Reset/reposition markers with magnet etc. 3 @ 1 mark	**3**
4(a)(iv)	Air pressure = barometer. Wind speed = anemometer. Wind direction = wind/weather vane/wind sock. Precipitation = rain gauge/pluviometer. 4 @ 1 mark	**4**
4(b)(i)	Ideas such as: Lots of/most cloud in winter/November to March; No/not much/least cloud in summer/June to September; OR more cloud in winter than summer = 1; Cloud decreases in Spring/from March/April to May/June; Cloud increases in autumn/from September/October to November etc. 3 @ 1 mark	**3**
4(b)(ii)	Ideas such as: Observe them/by observation/look at sky/by eye; Photograph/satellite images of clouds; Look straight up; Identify type using book/diagrams/ID chart; By considering vertical extent/shape/colour; Estimate the number of eighths of sky which is covered by cloud/cloud cover; Use a transparent grid divided into sections; Repeat every day/at same time of day/set times/given times (or examples)/every few hours/several times per day; 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 describe the impacts of flooding. Level 2 (4–6 marks) Uses named example. More developed explanation or linked statements which describe the impacts of flooding. (**Note**: Max 5 if no named or inappropriate example.) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements including place specific information. Content Guide: Answers are likely to refer to: Damage to properties; Death/injuries; Evacuation; Damage to farmland/food supplies; Disruption of transport; Disruption of sporting events; Cost of clean-up/insurance; Fertile soil/nutrients deposited; Water borne disease; Damage to/closure of workplaces etc. **Note**: Impacts can be positive. Place specific reference is likely to consist of: Locational details, named places within area flooded, specific details/statistics of damage/loss, dates etc.	**7**

Question	Answer	Marks
5(a)(i)	Pula. 1 mark	**1**
5(a)(ii)	Distance = 170–235 (km). Direction = South-east (SE)/135 degrees. 2 @ 1 mark	**2**
5(a)(iii)	***Fig. 5.2:*** Blue/clean/calm sea/lake/river; Beach; Tropical vegetation; Hotels/restaurants/apartments; Sailing/water sports/swimming etc. ***Fig. 5.3:*** Local/traditional/hand made products/souvenirs; Arts/crafts/flower making; Local/traditional/handmade costumes/clothing/hats etc. ***Fig. 5.4:*** Historical/ruined landscape/buildings/artefacts/monuments /coliseum/heritage site etc. 3 @ 1 mark	**3**
5(a)(iv)	Ideas such as: Jobs are created (accept examples)/earn money; Revival of local skills or e.g.; Increased customers/business/profits for shops/traders/people buy souvenirs; Local people can use tourist facilities; Airport improvement/expansion; Development of transport links (accept examples e.g., roads/railways); Development of specified infrastructure – electricity grid/sewage disposal/ water supply; Foreign currency/money through taxes/money for government spending (accept example of its use e.g., build hospitals, schools); Cultural exchange/learn other languages; Preservation of historical sites etc. 4 @ 1 mark	**4**

Question	Answer	Marks
5(b)(i)	Ideas such as: (Overall) increase; (2006 8.2 million to 2019 19.5 million/by 11.3 m); Little change 2006 to 2010/2011/increase then decrease during stated time spans/fluctuate; (2006 = 8.2 m 2010 = 8 m etc.); Increase 2010/2011 to 2019; (2010/2011/2012 to 2019 8/8.5 m/11.5 m to 19.5 m/by 11/11.5 m/8 m); Most rapid increase 2011 to 2012; (2011 to 2012 8.5m to 11.5 m/by 3 m). 3 @ 1 mark	**3**
5(b)(ii)	Ideas such as: Natural disasters (or example); Tourism may increase over time due to building of airports; Resort development/development of attractions will attract more tourists; Tourism will be affected by fluctuations in the economy/recession/high unemployment in a tourist generating country will reduce numbers; Increases/decreases in price of flights/hotels/holidays; Numbers will be reduced by political/religious unrest; War/terrorism; Special events (or example e.g., World Cup); Viruses/health scares (or example); Advertising/publicity; Border closures/restrictions or e.g., Covid 19/Visa restrictions; Changes in taste/tourist preferences or example 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 problems tourism causes for people and/or the natural environment. Level 2 (4–6 marks) Uses named example. More developed statements which describe the problems tourism causes for people and/or the natural environment. (**Note:** Max 5 if no named or inappropriate example.) Level 3 (7 marks) Uses named example. Comprehensive and accurate statements which describe the problems tourism causes people and the natural environment, including some place specific reference. Content Guide: Answers are likely to refer to disadvantages such as: Costs increased for local residents; Traffic congestion; Pressure on water/electricity supplies; Loss of farmland; Loss of culture; High rise hotels spoil the scenery; Negative impact to fishing communities due to water pollution; Noise disturbs people/frightens animals; Litter pollutes water/has to be cleaned up by residents; Loss of privacy; Deforestation/loss of vegetation; Air pollution makes breathing difficult; Water pollution kills fish; Impact on food chains/ecosystems disrupted etc. Place specific reference is likely to consist of: Locational details/named locations within area chosen etc.	**7**

Question	Answer	Marks
6(a)(i)	33–35 (%). 1 mark	1
6(a)(ii)	**Similarities such as:** Services is largest sector/over half/over 50%. **Differences such as:** Services is larger in Italy/smaller in Nigeria/or statistics (Italy 71/2% Nigeria 53/4%; Industry is larger in Italy/smaller in Nigeria/or statistics (Italy 25/26% Nigeria 12/13%); Agriculture is larger in Nigeria/smaller in Italy/or statistics (Italy 3/4% Nigeria 33/34%); Agriculture is smallest in Italy, but industry is smallest in Nigeria; Agriculture is 2nd in Nigeria but industry is 2nd in Italy; Nigeria has more agriculture than industry, but Italy has more industry than agriculture etc. **Note**: Differences need to be comparative. 2 @ 1 mark	**2**
6(a)(iii)	Ideas such as: Both have increased in services; Both have decreased in agriculture; In Nigeria there has been a greater decrease in agriculture than in Italy; In Nigeria there has been no change in industry but in Italy it has declined; Similar increase in services in both countries/slightly larger increase in services in Nigeria etc. 3 @ 1 mark	**3**
6(a)(iv)	Ideas such as: Mechanization in agriculture; Rural to urban migration; Greater affluence/more wealth available; Greater demand for leisure/retail services; People became more educated/develop more skills; Commercial growth – or examples – offices, shops, entertainments; Improvement/investment in/growth of health care/education etc. Improvements/investment in transport; Growth of tourism etc. 4 @ 1 mark	**4**

Question	Answer	Marks
6(b)(i)	***Inputs:*** Electricity; Sand; ***Processes:*** Cutting bricks; Rolling clay; ***Outputs:*** Smoke; Fumes; Bricks. All correct = 3 marks 4 or 5 correct = 2 marks 2 or 3 correct = 1 mark 0 or 1 correct = 0 marks 3 @ 1 mark	**3**
6(b)(ii)	Ideas such as: Loss of/damage to vegetation/deforestation/swamps drained to get clay; Soil erosion; Flooding/rising sea levels; Loss of habitat; Impact on food chains/ecosystems; Animals scared by noise; Death of wildlife; Reduction of biodiversity; Landscape altered physically by quarrying for sand/clay; Water pollution; Siltation of rivers; Lowering of water table; Air pollution/carbon dioxide released/carbon emissions; Global warming/greenhouse effect; Acid rain etc.; Smoke/fumes; Soil loses fertility; Land degradation. 5 @ 1 mark or development	**5**

Question	Answer	Marks
6(c)	Levels marking Level 1 (1–3 marks) Statements including limited detail which identify the factors which influence the location of a factory or industrial zone. Level 2 (4–6 marks) Uses named example More developed statements which explain the factors which influence the location of a factory or industrial zone. (**Note**: Max 5 if no named or inappropriate example.) Level 3 (7 marks) Comprehensive and accurate statements which explain the factors which influence the location of a factory or industrial zone, including some place references. Content Guide: Answers are likely to refer to: Raw materials; Transport; Market; Labour; Government policy; Ports; Large area of land etc. Place specific reference is likely to consist of: Locational details, Specific details of location/road numbers etc.	**7**